Systematically Biased Beliefs about Political Influence:

Evidence from the Perceptions of Political Influence on Policy Outcomes Survey

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Abstract:

Retrospective voting circumvents many of voters' cognitive limitations, but if voters' attributional judgments are systematically biased, retrospective voting becomes an independent source of political failure. We design and administer a new survey of the general public and political experts to test for such biases. Our analysis reveals frequent, large, robust biases, with an overarching tendency for the public to overestimate politicians' ability to influence outcomes. Retrospective voting usually gives elected leaders supraoptimal incentives, though there are important cases where the reverse holds.

Where are we to place responsibility for the conduct of our government? When we go to the polls, who can we hold accountable for the successes and failures of national policies? The president? The House? The Senate? The unelected Supreme Court? Or, given our federal system, the states, where governments are, in their complexity, a microcosm of the national government?

Even for those who spend their lives studying politics, these can be extremely difficult questions to answer.

- Robert Dahl (2002: 115)

1. Introduction

Voters are not merely ignorant; their beliefs about policy-relevant subjects are often systematically biased. Voters systematically overestimate the fraction of the federal budget spent on foreign aid and welfare, and underestimate the fraction spent on Social Security and health. (Kaiser Family Foundation and Harvard University 1995) Less-informed voters favor systematically different policies than otherwise identical more-informed voters. (Althaus 2003, 1998, 1996) Laymen's beliefs about economics, the causes of cancer, and toxicology systematically diverge from the beliefs of experts, even when matched on traits like income, employment sector, job security, demographics, party identification, and ideology. (Caplan and Miller 2010; Caplan 2007, 2002; Lichter and Rothman 1999; Kraus, Malmfors, and Slovic 1992) Voters also tend to discount evidence in conflict with their pre-existing beliefs. (Taber and Lodge 2006; Bullock 2006; Nyhan and Reifler 2010) Taken together, the evidence raises a troubling question: If politicians cater to the policy preferences of the median voter, won't inefficient and counter-productive policies win by popular demand?

The strongest reply to this concern is that citizens vote for results, not policies. As the retrospective voting literature argues, politicians win popularity by delivering prosperity, peace, safe streets, and well-educated students – not by pandering to the public's beliefs about the best *means* to achieve these ends. (Lewis-Beck and Stegmaier 2000; Sanders 2000; Alesina and Rosenthal 1995; Lupia 1994; Peltzman 1990; Ferejohn 1986; Kiewiet and Rivers 1984; Fiorina 1981; Barro 1973; Key 1967) One simple heuristic – reward success, punish failure – seems to allow voters with little, zero, or even negative knowledge about policy to extract socially desirable behavior from their leaders.

Unfortunately for democracy, this heuristic is not as foolproof as it seems. In order to reward success and punish failure, voters need to know which government actors – if any – are able to influence the various outcomes voters care about. (Arceneaux 2006; Anderson 2006; Cutler 2008, 2004; Rudolph and Grant 2002; Somin 1998; Lewis-Beck 1997; Leyden and Borrelli 1995; Kerr 1975) As Achen and Bartels (2004a: 6) put it:

If jobs have been lost in a recession, something is wrong, but is that the president's fault? If it is not, then voting on the basis of economic results may be no more rational than killing the pharaoh when the Nile does not flood...

Of course, well-functioning democracy does not require "whodunnit" knowledge to be universal. If well-informed voters know the right people to reward and punish, and the rest of the electorate votes randomly, politicians still have clear incentives to deliver good results. (Surowiecki 2004; Wittman 1995; Page and Shapiro 1993, 1992; Converse 1990) The real danger to democracy comes from *systematically biased* beliefs about political influence. (Caplan 2007; Rabin 1998; Thaler 1992; Gilovich 1991) Just as the market for automobile repair will work poorly if the average customer blames his grocer for engine trouble, local elections will work poorly if the average voter blames the president for the quality of public schools.

To test the American public's beliefs about political influence for systematic bias, we designed a new survey, and administered it to two distinct groups: (1) a nationally representative sample of Americans, and (2) members of the American Political Science Association who specialize in American politics. One of the main ways that scholars have tested for the presence of systematic bias on other topics is to see whether average beliefs of laymen and experts diverge. (Caplan 2007; Lichter and Rothman 1999; Kraus, Malmfors, and Slovic 1992) As Kahneman and Tversky describe their method: "The presence of an error of judgment is demonstrated by comparing people's responses either with an established fact... or with an accepted rule of arithmetic, logic, or statistics." (Kahneman and Tversky 1982: 493) "Established" or "accepted" by whom? By experts, of course. We extend this approach to questions of political influence. If laymen and experts' average beliefs differ, our defeasible presumption is that experts are right and laymen are wrong.

Systematically biased attributional beliefs turn out to be common and large. Fully 14 out of 16 survey questions exhibit statistically significant biases. Compared to experts in American politics, the public greatly overestimates the influence of state and local governments on the economy, the president and Congress on the quality of public education, the Federal Reserve on the budget, Congress on the Iraq War, and the Supreme Court on crime rates. The public also moderately *under*estimates the influence of the Federal Reserve on the economy, state and local governments on public education, and the president and Congress on the budget. While we are open to the possibility that non-cognitive factors explain observed belief gaps, controlling for demographics and various measures of self-serving and ideological bias does little to alter our results. A full set of controls reduces the absolute magnitude of the raw belief gaps by less than 13% – and leaves the number of statistically significant lay-expert differences unchanged.

Earlier researchers have already identified some systematic biases that undermine retrospective voting. Voters myopically reward and punish politicians for recent economic performance. (Bartels 2010; Achen and Bartels 2008, 2004a) Partisanship heavily distorts voters' attributional judgments. (Marsh and Tilley 2009; Rudolph 2006, 2003a, 2003b; Bartels 2002) Supporters of incumbent parties are eager to credit the government for good outcomes and reluctant to blame it for bad outcomes, opponents of incumbent parties do the opposite – and both sides can't be right. Voters also reward and punish politicians for outcomes that are clearly irrelevant or beyond their control, such as local football victories, world oil prices, and the state of the world economy. (Wolfers 2011; Healy, Malhotra, and Mo 2010; Leigh 2009; Achen and Bartels 2004b) Arceneaux and Stein (2006) report that many voters incorrectly blamed the incumbent mayor of the city of Houston for the *county* government's flood policy. Iyengar (1989: 878) finds important framing effects: "agents of causal responsibility are viewed negatively while agents of treatment responsibility are viewed positively." Healy and Malhotra (2009) show that voters reward politicians for disaster relief spending, but not disaster prevention spending, even though prevention is demonstrably more cost-effective. Marsh and Tilley (2009), Tilley, Garry, and Bold (2008), Arceneaux and Stein (2006), Rudolph (2003a), and Gomez and Wilson (2001) find systematic effects of education and/or political sophistication on attributional judgments.

Our original contribution is twofold. First, to the best of our knowledge, no other paper uses a large, representative lay-expert comparison to test whether voters have systematically biased beliefs about political influence.¹ Second, our full array of outcomes (macroeconomic performance, budget, education, crime, and the war in Iraq) and actors (president, Congress, Supreme Court, Federal Reserve, and state and local government) is the largest and most comprehensive to date. (Cutler 2008; Arceneaux 2006; Atkeson and Partin, 1998, 1995)

Our results do *not* imply, of course, that the American public's beliefs about political influence are biased in every conceivable respect. Voters' attributional judgments often respond in rational ways to divided government (Rudolph 2003a; Whitten and Palmer 1999; Lewis-Beck 1997; Leyden and Borrelli 1995; Alesina and Rosenthal 1995; Powell and Whitten 1993) and federalism (Arceneaux 2006, Anderson 2006, Cutler 2004; Stein 1990). Nevertheless, the American public's beliefs about political influence *are* biased in some important respects, raising serious questions about the ability of retrospective voting to circumvent other slippages in the democratic process.

¹ The only precursor of which we are aware is Cutler (2008: 634), which compares the Canadian public's attributional beliefs to those of 33 Canadian political scientists specializing in federalism or provincial politics.

The next section describes the Perceptions of Political Influence on Policy Outcomes Survey. Section 3 presents our benchmark results. Section 4 adds controls to address the possibility of expert bias. Section 5 discusses the broader significance of our results. Section 6 concludes.

2. Data

We administered our Perceptions of Political Influence on Policy Outcomes Survey in two distinct phases – one for laymen, the other for experts. In phase one, conducted on February 13-18, 2008, Zogby International included our questions on an omnibus telephone survey of adults nationwide. The targets were randomly drawn from telephone CDs of nationally listed samples, with selection probabilities proportional to population size within area codes and exchanges. Zogby achieved a typical contemporary response rate of 14.6%, collecting a total of 1,215 responses.

On March 17, 2008, we initiated phase two of our survey. We mailed our political influence questions – plus Zogby's demographic and control questions – to a subset of the American Political Science Association. The wording and response options of the phase two questions were identical to those of the phase one questions.

All APSA members with U.S. addresses who specialize in American politics were included in our sample. To qualify as "specialists in American politics," APSA members had to list at least one of the following fields of interest: federalism/intergovernmental

relations, law and courts, legislative studies, public policy, representation/electoral systems, presidency research, or state politics and policy. This yielded 2,894 names, approximately 90% of which had U.S. mailing addresses.

APSA members had the option to respond by business reply mail or password-protected web script.² We received 577 responses by April 14, 2008, but continued to accept responses until July 29, 2008. By that point we had 673 responses from APSA members, with a response rate of 26%.

Table 1 lists the public's and political scientists' mean responses to our main questions. Note that lower numbers indicate *more* perceived influence. Table 2 lists both groups' mean responses to Zogby's demographic and control questions. As expected, political scientists are markedly more educated, affluent, male, Democratic, and liberal than the general public.

3. Benchmark Results

In standard rational choice models of belief formation, additional information reduces the variance of beliefs without changing their mean. (Sheffrin 1996; Lucas 1973; Muth 1961) One implication is that laymen and experts will have the same *average* beliefs. As long as experts are correct on average, we can test the public's political influence beliefs for systematic bias simply by checking whether American politics specialists in the APSA systematically disagree. (Caplan 2007)

² The URL for the web script is http://www.bcaplan.com/cgi-bin/apsasurv.cgi.

In principle, admittedly, belief gaps could indicate bias in either group – or both. But almost everyone concedes a general *presumption* in favor of expert consensus. The APSA members in our sample have typically studied American politics for decades. 80% of our political scientists – versus just 32% of the public – earned perfect scores on a four-question objective political knowledge test included in our survey. If American politics specialists systematically disagree with novices, the novices' defenders have to provide some reason to undermine the experts' credibility.

Before we can consider the main challenges to political scientists' credibility, though, we must estimate some benchmark results. We use ordered logits to measure the lay-expert belief gap for all of the beliefs in Table 1. Table 3 displays the estimated coefficients and z-stats when our Political Scientist dummy is the sole independent variable.

The initial case for systematic bias is strong. Differences between political scientists and the general public are statistically significant in 15 out of 16 questions; the one exception was the president's influence on the war in Iraq. The absolute value of the z-stat>4 in 14 out of 16 questions. These beliefs gaps are also fairly large in substantive terms. The average absolute value of the lay-expert gap is .36 on our 4-point scale.

The most obvious difference between political scientists and the public: The public thinks that politicians have more influence over outcomes. 11 out of the 15 statistically significant belief gaps are positive, indicating that political scientists ascribe less influence to politicians than the public does. The public thinks that *all* of the actors

mentioned in our survey – the president, Congress, the Supreme Court, and state and local governments – have more influence over crime rates than political scientists will admit.

Still, the pattern is more complex than "political scientists see more randomness in politics than the public" or "the public scapegoats leaders for outcomes beyond their control." For three of our five outcome variables, experts single out political actors with influence that the average layman overlooks. On the economy, political scientists single out the Fed. On the quality of public schooling, political scientists single out state and local governments. On the budget, political scientists single out both Congress and the president. If the consensus of political scientists is correct, the public's problem is not merely blaming leaders too much, but also showing some crucial actors undue leniency.

Six of the coefficients in the benchmark results are especially large, with z-stats greater than ten. Compared to laymen, political experts think that state and local governments have far less influence over the macroeconomy; the president and Congress much less influence over education; the Fed much less influence over the budget; Congress much less influence over the Iraq War; and the Supreme Court much less influence over crime rates.

4. Expert Bias?

Large, systematic disagreements between laymen and political experts provide prima facie evidence of systematic public bias. But the prima facie case can be rebutted.

Political scientists sharply differ from the broader public on several non-cognitive dimensions. They are disproportionately affluent white males. Since humans often suffer from self-serving bias (Dahl and Ransom 1999; Babcock and Loewenstein 1997), perhaps the experts' comfortable situation and elite status color their perceptions about political influence. Political scientists are also much more liberal and Democratic than the general public. Earlier researchers find that voters' political loyalties heavily influence their perceptions of political influence. (Marsh and Tilley 2009; Rudolph 2003a, 2003b) Perhaps political scientists' unique perspective reflects some form of left-of-center bias, rather than a deeper understanding of American politics.

Fortunately, our data set is rich enough to test both of these doubts about the experts' credibility. Suppose political scientists' distinctive views stem entirely from self-serving bias. Then controlling for income, sex, race, and other measures of self-interest should drive the coefficients on the political science dummy variable to zero. Similarly, if political scientists' distinctive views stem entirely from their liberalism, then the estimated effect of training in political science should vanish after controlling for party identification and ideology.

Self-serving bias. We re-estimate all of the ordered logits in Table 3 with controls for race (with white as the reference category), gender, age, age squared, income, job security, and expected income growth. Table 4 shows (a) the revised coefficients on the Political Scientist dummy, (b) the revised z-stats, and (c) the expected beliefs of laymen

and experts after setting all of the control variables equal to their median values for the lay respondents.

The results offer virtually no support to the self-serving bias hypothesis. Indeed, after adding all of these controls, the PoliSci variable becomes statistically significant in all 16 equations. The z-stat exceeds 4 in all but three cases. The average magnitude of the predicted belief gaps is .35, compared to .36 in the raw data. While political scientists are indeed economically and demographically unusual, these potentially self-serving differences have no apparent effect on their attributional beliefs.

Ideological bias. There are persuasive reasons to suspect that at least part of political scientists' disagreements with the broader public stems from ideological bias. Political scientists are decidedly more Democratic and liberal than the broader population. Earlier research suggests that these political variables will sway political scientists beliefs in two ways.

First, since our survey was run during the final troubled year of the Bush administration, with both houses of Congress under Democratic control, the evidence on partisan bias suggests that political scientists would exaggerate the influence of the president relative to other branches of government. (Marsh and Tilley 2009; Rudolph 2006, 2003a, 2003b; Bartels 2002)

Second, as Rudolph (2003b: 701-2) predicts and broadly confirms, liberals tend to give government actors more credit *and* blame for economic outcomes: "Just as the 'ethic of self-reliance' prevents many people from blaming government for their personal economic problems... so too may economic conservatism prevent certain people from attributing responsibility for the national economy to government officials." Liberals' belief in governments' centrality arguably generalizes to non-economic outcome variables as well. Conservatives might hold, for example, that good schools and safe streets depend primarily on family values rather than government policy.

To test the ideological bias hypothesis, we re-estimate all of the ordered logits in Table 3 with controls for party and ideology. Since Zogby's party questions include an "other party" option, and its ideology question includes a "libertarian" option, we add dummy variables for "other party" and "libertarian." Table 5 shows (a) the revised coefficients on the Political Scientist dummy, (b) the revised z-stats, and (c) the expected beliefs of laymen and experts after setting all of the control variables equal to their median values (party=independent, ideology=moderate) for the lay respondents.

The data provide at best sporadic support for the ideological bias hypothesis. There are a few questions where some form of partisan bias may play a small role. Conservatives think the Supreme Court has more influence over crime rates, and assign marginally more budgetary influence to Congress *and* the president. For the Fed's influence on the budget, and the president's influence on the Iraq War, party and ideology actually push in opposite directions. But none of these effects are large. After controlling for ideological

bias, the coefficient on the PoliSci dummy remains statistically significant in 14 out of 16 equations. The z-stat>4 in all but three cases. The average magnitude of the lay-expert belief gap does not budge from its benchmark level of .36.

A final point of interest: Do political scientists' distinctive views reflect their high level of education, their training in politics, or some mixture of the two? In other words, to what extent do laymen with graduate educations "think like political scientists"? To answer this question, we re-estimate all of the ordered logits in Table 3 with controls for self-serving bias, ideological bias, and educational attainment. Table 6 shows (a) the revised coefficients on the Political Scientist dummy, (b) the revised z-stats, (c) the coefficients on Education, (d) and the z-stats for the Education coefficients. After setting all of the other control variables equal to their median values for the lay respondents, Table 6 also shows the expected beliefs for laymen with the median level of education (some college), laymen with graduate training, and political scientists with graduate training.

Training in political science has a much larger effect than educational attainment. Even after controlling for education, the coefficient on the PoliSci dummy remains statistically significant in 14 out of 16 equations. Controlling for training in political science, the coefficient on education is statistically significant in 6 out of 16 equations. There are three questions where the PoliSci dummy and education both have statistically significant effects in the same direction, two where they have statistically significant effects in the opposite direction, and only one (the effect of state and local governments on the quality of public schooling) where controlling for education wipes out the statistically significant effect of political expertise.

Controlling for education does reduce the average absolute magnitude of the lay-expert belief gap, but only slightly. The expected belief gap between laymen with the median education level and political scientists is .37. The expected belief gap between laymen with graduate education and political scientists, in contrast, is .33. The gap between political scientists and the public therefore reflects roughly 90% training in political science, and just 10% education per se.

5. Discussion: The Effects of Bias

A. Theory

Retrospective voting is the last, best safety net for democratic efficiency. The defender of democracy can stipulate to all of the electorate's alleged inadequacies. He can accept the empirical evidence of the typical voter's ignorance (Somin forthcoming, 1998; Delli Carpini and Keeter 1996; Bennett 1996; Converse 1964) and irrationality (Wolfers 2011; Healy, Malhotra, and Mo 2010; Healy and Malhotra 2009; Caplan 2007). As long as these ignorant and irrational voters know enough to reward success and punish failure, democracy can still work well.

The defender of democracy can even admit that there is widespread ignorance about "who to blame for what." Suppose 10% of voters know precisely enough to reward success and punish failure, and the rest of the electorate votes randomly. Then

retrospective voting plus the Miracle of Aggregation virtually guarantee democratic efficiency, even if the average voter know little, nothing, or less than nothing about public policy. (Surowiecki 2004; Wittman 1995) The defender of democracy can even concede that partisans' attributional judgments are biased. (Marsh and Tilley 2009; Rudolph 2006, 2003a, 2003b) As long as the median informed voter is *not* a partisan, retrospective voting and the Miracle of Aggregation continue to drive democracy to efficient outcomes.

Unfortunately, retrospective voting still requires a largely undefended assumption: Voters' beliefs about political influence are unbiased. The Condorcet Jury Theorem ceases to imply accurate verdicts if jurors have systematically biased beliefs about guilt. With systematically biased beliefs, increasing the size of the decision group actually increases the chance of getting a "wrong" decision rather than reducing it (Somin forthcoming). Retrospective voting, similarly, ceases to imply democratic efficiency if voters have systematically biased beliefs about political influence.

How precisely do systematically biased beliefs about political influence impede democratic performance? There are three basic cases to consider:

Case 1: Underestimating influence. The social harm of underestimation is straightforward. Retrospective voters who underestimate political actors' influence over outcomes will be too willing to vote against incumbents when conditions are good, and too reluctant to vote against incumbents when conditions are bad. This in turn weakens

politicians' incentives to excel and encourages political shirking. (Albouy 2010; Bender and Lott 1996; Rose-Ackerman 1980) If voters falsely attribute the fruit of your efforts to luck, why struggle to deliver the goods? If voters falsely attribute your errors and misdeeds to outside failures, why bother with caution and probity? Shirking may be particularly likely when adopting more effective policies is likely to attract the ire of influential interest groups.

Admittedly, if a politicians' *only* goal were maximizing votes, then uniformly halving the sensitivity of votes with respect to performance would not change his optimal decision. Voter bias would be like a surtax on excess profits; if *t* is an exogenous tax rate, whatever maximizes X automatically maximizes (1-t)X. (Hakken 2005) If a politician has any personal, financial, or ideological motive to shirk, however, halving the sensitivity of votes to performance increases shirking at the expense of performance. (Somin 2009) In the polar case where voters imagine that politicians have *zero* influence on outcomes, politicians can safely ignore outcomes and devote themselves entirely to shirking. Public-minded politicians would still make some effort to produce good results (Besley 2007), but this would be a charitable donation rather than a self-interested response to electoral incentives.

Case 2: Overestimating influence. The dangers of overestimating politicians' influence on outcomes are less obvious, but no less real. Retrospective voters who overestimate political actors' influence over outcomes will be too eager to vote against incumbents

when conditions are bad, and too willing to vote for incumbents when conditions are good.

It is tempting to object that the stronger politicians' incentives are, the better. But this is simply untrue: In a noisy world, incentives can easily be *too* strong. Gibbons (2005), Baker (2002, 1992), Zenger and Marshall (2000), Sappington (1991), Weitzman (1980), and Kerr (1975) analyze a wide range of mechanisms, most of which hinge on agents' risk-aversion. But when the key incentive is not compensation, but continuation or termination of employment, high stakes may be unwise even with risk-neutral agents. Imagine a company that fires its CEO at the end of any day its stock price goes down. While the CEO would have a strong incentive to succeed, there are major downsides. The firm would inevitably fire many qualified, diligent CEOs. To attract candidates for such an insecure position, the firm would have to boost compensation, settle for lower-quality leadership, or incur extremely high search costs. Moreover, the CEO might have strong perverse incentives to sacrifice the long-term interests of stockholders in order to boost short-term stock prices. Perhaps most importantly, firing CEOs after their first losing day would entail frequent disruptive interregnums.

Giving politicians supraoptimal incentives leads to analogous pathologies. Suppose voters overestimate the effect of the nation's president on the quality of public schools, and vote accordingly: If the public schools don't measure up, they fire the incumbent in the next election. This admittedly amplifies presidents' incentive to improve public schools. But if the president has little influence in this area, voters will frequently fire high-quality executives who did well given their constraints. As a result, voters will have to boost politicians' pay, settle for inferior candidates, or incur additional search costs. Overestimation of the incumbent's influence in one policy area also leads voters to overvalue outcomes in the field relative to other issues. If the public overestimates the president's influence on education outcomes, they might focus too much on that issue when deciding whether to re-elect him, and not enough on other matters over which he has more control, such federal judicial appointments. Thus, an incumbent with a good record on issues where he has a lot of influence could be voted out because of poor results in areas where his decisions have little real impact. The greatest drawback of overestimation of political influence, though, may simply be needless disruption every time the polity replaces one scapegoat with another.

Overestimation is particularly dangerous when there is a cap on the penalty for failure. In most democracies, for example, the executive's worst-case scenario is simply to be voted out of office. As a result, an incumbent with slightly sub par performance has a clear incentive to take big risks to make the cut: Heads he wins, tails he suffers the same fate he would have met if he played it safe. (Calomiris 1999; Rose-Ackerman 1991). In the extreme case, politicians fearing electoral defeat might instigate "diversionary" wars or other foreign crises in the hopes of strengthening their standing. (Smith 1996) If the war or crisis results in success, the imperilled leader might stave off electoral defeat. If it ends in defeat, the leader is not much worse off than before, since he was likely to lose power anyway.

Case 3: Misallocating influence. The effects of systematically biased beliefs about political influence become more complex if voters *misallocate* influence – i.e., reward and punish one branch of government for the successes and failures of another. In this situation, standard models of team production (Dixit 2002; McAfee and McMillan 1991; Holmström 1982) suggest that retrospective voting will perversely encourage bad performance.

Suppose voters underestimate the president's influence on the Iraq War, and overestimate Congress's influence on the same outcome.³ The president might actually have an electoral motive to prolong the war. Even if the president and Congress belong to the same party, the president might deliberately underperform in order to enhance his bargaining position: If you don't cooperate with me, you're more likely to lose your job than I am.

With divided government and party loyalty, the danger is even greater. A Republican president could improve his party's chances of regaining Congress in the next election simply by dragging out the war, safe in the knowledge that Congress will shoulder most of the blame. The precise effects of blame-shifting are model-specific, but extremely dysfunctional equilibria are plainly possible in theory.

B. Empirics

³ Note that in our actual data on this issue, the public seems to slightly overestimate the president's influence, and greatly overestimate Congress's influence.

Our data suggest that all three cases are empirically relevant. But Case 2 – overestimation – predominates. In our data, voters exaggerate politicians' influence, so retrospective voters typically *over* reward politicians for success and *over* punish them for failure. This does not mean that reelection rates are too low. The implication, rather, is that reelection rates are too high when outcomes are good, and too low when outcomes are bad. If this conclusion seems implausible, perhaps the reason is that the very idea of "supraoptimal incentives" is so counterintuitive.

Still, there are important exceptions to the rule that voters overestimate leaders' influence. Our data indicate that voters underestimate the influence of the Federal Reserve on the economy, of state and local government on the quality of public schools, and of both the president and Congress on the budget. In these areas, we should expect retrospective voters to underreward success and underpunish failure. If American politics specialists know what they are talking about, these are areas where voters should accept fewer excuses and demand more results.

Finally, there are at least three outcomes – the economy, public schools, and the budget – where voters seem to misallocate influence – to overestimate the role of some actors, while underestimating the role of others. On the economy, the public overestimates the role of the president, Congress, and especially state and local governments, while underestimating the role of the Federal Reserve. One surprising but plausible implication is that incumbents in state and local government will frequently be scapegoats for the central bank's mistakes. (Hansen 1999) For public schooling, similarly, the public

overestimates the influence of Congress and the president, while underestimating the role of state and local government. The expected result is that state and local governments will habitually shift the blame for their schools' shortcomings over to the federal government. On the budget, finally, our data indicate that voters sharply overestimate the role of the Fed, and underestimate the influence of Congress and the president. When retrospective voters are dissatisfied with the budget, an unelected body apparently siphons off blame from the politicians who actually control the outcome. (Morris and Munger 1998; Kane 1980)

At this point, the defender of democratic efficiency might distance himself from the strictly retrospective voting model. Perhaps other factors also influence voters' decisions, in which case poor retrospective evaluation might not have much effect on voting decisions. To examine this possibility, our survey included two questions to directly measure the prevalence of various voting strategies.

The first measures the prevalence of retrospective versus prospective voting: "When deciding which candidate to vote for, does the candidate's past performance or the candidate's promise for the future matter more to you?" The second measures the popularity of character versus policy voting: "When deciding which candidate to vote for, does the candidate's character and values, or the candidate's position on policy issues matter more to you?" For both questions, "Both matter equally to me" was a third response option. Table 7 breaks down the results for political scientists and the public.

Responses to the first question confirm that retrospective voting is widespread, but far from universal. Over half of the public said "past performance," and another third said "both equally." Flawed retrospective evaluations are likely to influence the voting decisions of a large majority of the electorate. The public's responses to the second question, in contrast, show that character/values voting is only slightly more common than policy voting. Political scientists, in contrast, are markedly more prospective and policy-oriented.

Overall, the data support a pluralistic model of voter behavior. Candidates' past performance, future promise, character, values, and policy positions all matter. Since retrospective voting is merely one tool in the electorate's toolbox, our evidence does not conclusively prove that democracy falls short. However, if the other tools in the electorate's toolbox are defective, it is naive to expect retrospective voting to automatically repair or replace them. Suppose the electorate systematically underestimates the social benefits of free trade. (Caplan 2007) Politicians competing for voters' support will embrace free trade despite public opposition as long as voters are purely retrospective and their attributional judgments are unbiased. But if voters count politicians' policies *and* outcomes, or if voters reward and blame the wrong politicians for outcomes, good economics may well be bad politics.

6. Conclusion

Voter competence in assessing blame can only be measured against a suitable benchmark. Earlier benchmarks include myopia, sensitivity to exogenous events (e.g. world oil prices, natural disasters, or the state of the world economy), and systematic effects of party, education, and political sophistication. We extend this literature by using expert consensus as a benchmark. We administer identical questions to both a nationally representative American sample and American politics specialists from the American Political Science Association. When laymen and experts hold systematically different beliefs about political influence, we treat this as prima face evidence of voter bias.

The prima facie evidence of voter bias is strong. Political scientists and the public systematically disagree on 15 out of 16 questions. Their belief gaps are usually large in magnitude and highly statistically significant. We then explore the robustness of these findings by controlling for important non-cognitive differences between political scientists and the public. Political scientists are much more affluent, liberal, Democratic, and male than the general population. It turns out, however, that none of these differences explain more than a small fraction of the lay-expert gap. Even after we add education to the list of control variables, over 90% of the raw belief gap between political scientists and the public remains.

These findings shed light on two broader topics. First, they undermine the view that systematically biased beliefs about *policy* can be safely ignored. Retrospective voting may partially mitigate the effect of popular misconceptions about economics, toxicology, and other subjects. But retrospective voting is a flawed filter. Second, our findings show that retrospective voting actually adds new contaminants to the democratic process.

Systematically biased beliefs about political influence make some politicians' incentives overly weak, and others' excessively strong.

The most obvious direction for future research is to explore the robustness of our findings using other samples and other benchmarks of voter competence. But perhaps more importantly, our research highlights the need for new formal political models that incorporate realistic assumptions about human cognition (e.g. Caplan 2003; Kuran and Sunstein 1999) If the president knows that voters will partially blame Congress for his errors, how does this change his behavior? If Congressmen expect to be the president's scapegoats, how will they respond? Can *both* branches profit by creating an unelected agency to deflect the blame for bad outcomes? The best response to unrealistic formal models is not to abandon models, but to rebuild them on empirically sound assumptions.

#	Variable	Question	Mean	Mean
			(Public)	(PoliSci)
they Plea	y have over <i>whethe</i> ase rate your overa	ons deals with parts of the government and ho er the economy gets stronger or weaker during all opinion of each of the following as very inf affuential or not all influential.	g the next t	wo years.
1	ECONSL	State and local governments	1.95	2.41
2	ECONCON	Congress	1.66	1.87
3	ECONPRES	President	1.78	1.88
4	ECONFED	Federal Reserve	1.58	1.39
they ove	y have over how w	ions deals with parts of the government and he ell the public schools educate their students. h of the following as very influential, somewh all influential.	Please rate	your
5	SCHOOLCON	Congress	2.19	2.62
6	SCHOOLSL	State and local governments	1.48	1.23
7	SCHOOLPRES	President	2.33	2.83
they opin	y have over how m	ons deals with parts of the government and ho oney in the federal budget is spent. Please rate following as very influential, somewhat influ l influential.	te your ove	rall
8	BUDFED	Federal Reserve	1.99	2.98
9	BUDCON	Congress	1.47	1.16
10	BUDPRES	President	1.67	1.37
ove opin	r whether the U.S.	with parts of the government and how much in will succeed or fail in the Iraq War. Please ra following as very influential, somewhat influ l influential.	ate your ov	erall

Table 1: Perceptions of Political Influence: Summary Statistics

11	IRAQCON	Congress	1.72	2.10			
12	IRAQPRES	President	1.47	1.45			
dea	How much influence parts of government have over crime rates is what this next section deals with. Please rate your overall opinion of each of the following as very influential, somewhat influential, not very influential or not at all influential.						
13	CRIMEPRES	President	2.54	2.96			
14	CRIMESC	Supreme Court	1.98	2.76			
15	CRIMESL	State and local government	1.52	1.55			
16	CRIMECON	Congress	2.26	2.63			
1=	"very influential"	2= "somewhat influential" 3= "not very influ	ential" 4=	= "not at all			
infl	influential"						

Question	Mean	Mean	
	(Public)	(PoliSci)	
Which of the following best represents your race or ethnic group?			
White, non-Hispanic	.88	.93	
Hispanic	.03	.02	
African American	.04	.02	
Asian/Pacific	.01	.01	
Other/mixed	.04	.02	
What is your gender?			
Male	.45	.73	
Female	.55	.27	
What is your age?	57.49	48.41	
In politics today, do you consider yourself a?			
Which major party do you usually lean toward?			
-2= "Democrat" -1= "Independent, Lean Democrat" 0=	.04	-1.11	
"Independent" 1= "Independent, Lean Republican" 2=			
"Republican"			
Other	.01	.04	
Which description best represents your political ideology?		<u> </u>	
1 = "Progressive/very liberal" 2= "liberal" 3= "moderate" 4=	2.85	2.18	
"conservative" 5= "very conservative"			
Libertarian	.02	.05	

Table 2: Demographic/Control Variables: Summary Statistics

Which of the following best represents your household income	3.63	5.15
last year before taxes?		
1= "Less than \$25,000" 2= "\$25,000-\$34,999" 3= "\$35,000-		
\$49,999" 4= "\$50,000-\$74,999" 5= "\$75,000-\$99,999" 6=		
"\$100,000 or more"		
Are you very concerned, somewhat concerned, not too concerned,	2.64	3.02
or not at all concerned about yourself or someone else in your		
household losing their job within the next year?		
1= "Very concerned" 2= "Somewhat concerned" 3= "Not too		
concerned" 4= "Not at all concerned"		
Over the next five years, do you expect your family's income to	2.27	2.07
grow faster or slower than the cost of living, or do you think it		
will grow at the same pace?		
1= "Grow slower than the cost of living" $2=$ "It will grow at the		
same pace" 3= "Grow faster than the cost of living"		
Which of the following best describes your highest level of	3.38	4.98
education?		
1= "Less than high school graduate" 2= "High school graduate"		
3= "Some college" 4= "College graduate" 5= "Graduate		
or professional school after college"		
Political scientist	0.00	1.00

#	Variable	PoliSci	z-stat
		Coefficient	
1	ECONSL	1.17	12.50
2	ECONCON	.67	7.30
3	ECONPRES	.42	4.72
4	ECONFED	45	-4.61
5	SCHOOLCON	.97	10.78
6	SCHOOLSL	87	-7.74
7	SCHOOLPRES	1.01	11.34
8	BUDFED	1.90	19.39
9	BUDCON	-1.17	-9.52
10	BUDPRES	71	-7.32
11	IRAQCON	.98	10.69
12	IRAQPRES	.09	.85
13	CRIMEPRES	.85	9.47
14	CRIMESC	1.60	17.05
15	CRIMESL	.21	2.19
16	CRIMECON	.89	9.87

Table 3: Benchmark Results – Ordered Logits on PoliSci

Table 4: Controlling for Self-Serving Bias – Ordered Logits on Race Dummies, Male, Age, Age², Income, Job Security, Expected Income Growth, and PoliSci (Comparisons set variables other than PoliSci equal to medians for the general public).

#	Variable	PoliSci	z-stat	Mean	Mean
		Coefficient		(Public)	(PoliSci)
1	ECONSL	1.20	10.57	1.93	2.42
2	ECONCON	.69	6.13	1.56	1.82
3	ECONPRES	.47	4.26	1.71	1.91
4	ECONFED	37	-3.11	1.54	1.43
5	SCHOOLCON	.92	8.33	2.17	2.59
6	SCHOOLSL	54	-3.97	1.42	1.28
7	SCHOOLPRES	.96	8.76	2.35	2.79
8	BUDFED	1.69	14.45	1.97	2.84
9	BUDCON	81	-5.64	1.40	1.21
10	BUDPRES	58	-4.93	1.63	1.43
11	IRAQCON	1.27	11.01	1.65	2.22
12	IRAQPRES	.38	2.92	1.45	1.60
13	CRIMEPRES	.78	7.17	2.57	2.92
14	CRIMESC	1.45	12.91	2.00	2.71
15	CRIMESL	.48	4.07	1.50	1.67
16	CRIMECON	.87	7.89	2.25	2.63

Table 5: Controlling for Ideological Bias – Ordered Logits on Party, Ideology, and PoliSci (Comparisons set variables other than PoliSci equal to medians for the general public).

#	Variable	PoliSci	z-stat	Mean	Mean
		Coefficient		(Public)	(PoliSci)
1	ECONSL	1.17	11.34	1.91	2.39
2	ECONCON	.79	7.67	1.60	1.91
3	ECONPRES	.45	4.53	1.70	1.88
4	ECONFED	42	-3.91	1.55	1.42
5	SCHOOLCON	.91	9.17	2.15	2.56
6	SCHOOLSL	87	-7.04	1.44	1.22
7	SCHOOLPRES	1.01	10.21	2.30	2.77
8	BUDFED	1.94	17.98	1.97	2.97
9	BUDCON	-1.13	-8.48	1.43	1.17
10	BUDPRES	71	-6.67	1.62	1.39
11	IRAQCON	.96	9.52	1.67	2.10
12	IRAQPRES	.20	1.81	1.40	1.47
13	CRIMEPRES	.83	8.47	2.53	2.91
14	CRIMESC	1.61	15.50	1.95	2.74
15	CRIMESL	.16	1.53	1.48	1.53
16	CRIMECON	.78	7.84	2.24	2.58

Table 6: Controlling for Self-Serving Bias, Ideological Bias, and Education – Ordered Logits on Race Dummies, Male, Age, Age², Income, Job Security, Expected Income Growth, Party, Ideology, Education, and PoliSci (Comparisons set variables

oth	er than Education	n and Poli	iSci equa	al to med	lians fo	r the gener	al public).	
#	Variable	PoliSci	z-stat	Educ.	Z-	Mean	Mean	Mean

#	variable	Ponsci	z-stat	Eauc.	Z-	Mean	Mean	Mean
		Coef.		Coef.	stat	(Public,	(Public,	(PoliSci,
						Educ=3)	Educ=5)	Educ=5)
1	ECONSL	1.21	8.36	.03	.47	1.92	1.94	2.43
2	ECONCON	.84	5.73	08	-1.16	1.57	1.52	1.82
3	ECONPRES	.36	2.51	.07	1.07	1.67	1.73	1.87
4	ECONFED	29	-1.93	07	-1.01	1.55	1.51	1.42
5	SCHOOLCON	.83	5.78	.06	1.01	2.13	2.19	2.56
6	SCHOOLSL	25	-1.43	25	-3.53	1.45	1.31	1.25
7	SCHOOLPRES	.78	5.53	.18	2.85	2.28	2.45	2.80
8	BUDFED	1.68	11.45	.09	1.49	1.95	2.04	2.90
9	BUDCON	58	-3.19	22	-3.14	1.43	1.31	1.20
10	BUDPRES	68	-4.51	.04	.55	1.60	1.63	1.41
11	IRAQCON	1.39	9.52	15	-2.31	1.67	1.56	2.15
12	IRAQPRES	.51	3.02	05	68	1.44	1.41	1.60
13	CRIMEPRES	.55	3.89	.19	3.06	2.51	2.68	2.92
14	CRIMESC	1.34	9.31	.12	1.91	1.97	2.08	2.73
15	CRIMESL	.64	4.15	17	-2.55	1.52	1.41	1.62
16	CRIMECON	.78	5.42	.01	.08	2.25	2.25	2.58

Table 7: Voting Strategy Prevalence

When deciding which candidate to vote for, does the candidate's past performance or the candidate's promise for the future matter more to you?

	Past performance	Both Equally	Future Promise
Public	54%	32%	14%
PoliSci	29%	64%	7%
-	which candidate to vote for position on policy issues ma		
	Character/Values	Both Equally	
		Dom Equally	Policy Issues
Public	35%	39%	27%

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