



Working Paper Series  
Department of Economics  
University of Verona

## Lying in Politics: Evidence from the US

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WP Number: 22

November 2013

ISSN: 2036-2919 (paper), 2036-4679 (online)

# LYING IN POLITICS: EVIDENCE FROM THE US\*

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## Abstract

In this paper, we quantify the extent and identify some major determinants of lying in politics. We focus on public claims made by US national politicians between 2007 and 2012 and present a series of intriguing results. While politicians – and prominent ones in particular – are reluctant to tell complete (or ‘black’) lies, they have a strong propensity to (strategically) tell ‘grey’ lies, i.e. claims that are only partly true. Moreover, party affiliation has a huge influence, with Republicans being more likely to depart from the truth than Democrats. Also one’s state of origin plays an important role: whereas politicians in general are significantly less likely to lie if they come from swing (or battleground) states, Democratic politicians lie more frequently if they come from traditionally Blue states. Politicians are also less likely to be untruthful if they come from highly educated states and from Southern states, where traditional values prevail. As to political topics, both black and grey lies occur more often on health-related issues. As to presidential candidates, Obama lies significantly less than his opponents. Our results on the extent and sources of variation of lying in politics inform the theory of strategic information transmission as well as the streams of literature on persuasive communication, democratization, human lying in general and deceptive behavior in politics.

**Keywords:** Lying; Democracy; Political Competition; Beliefs.

**JEL classification:** D72; D03; C25; D82.

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\* We thank Bill Adair, founding editor of PolitiFact.com, as well as David Hugh-Jones, George Loewenstein, Samuel Nguyen, Filippo Pavesi and participants to the Bruno Kessler Foundation’s 2013 Workshop on Behavioural Economics: Science, Philosophy, and Policy-Making for helpful suggestions. We also wish to thank Francesca Dainese and Erjona Daka for their skillful work on data collection. Opinions reported in the paper are solely of the authors and do not reflect the view of their institutions. The usual disclaimers apply.

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*Here are three things that most Americans  
take as an article of faith:  
The sky is blue. The pope is Catholic.  
And politicians are liars<sup>1</sup>*

## I. INTRODUCTION

Humans lie, and lie a lot. Also thanks to the advent of the Internet, today there is growing consensus on the idea that we live in a ‘post-fact’ or ‘post-truth’ era (Keyes [2004]), in which many people lie on a daily basis, with deceptive advertising, fake identities and other forms of lying proliferating both online and offline – from phishing emails, inflated resumes and listing of unearned degrees to colossal frauds in the financial and corporate world. Recent experiments confirm that we exhibit a strong tendency to tell lies to others (Gneezy [2005]; Fischbacher and Heusi [2013]; Gibson, Wagner and Tanner [2013]).

This paper offers the first field evidence that the political arena makes no exception, thus providing support for the widely shared perception – captured by our opening quote from *CBS News* – that politicians frequently lie.<sup>2</sup> By relying on data on US national politicians, we assess the extent and identify the major determinants of lying in politics. Our main source of data is the website PolitiFact.com, a media fact-checker managed by the independent newspaper Tampa Bay Times.<sup>3</sup> We collected from the website about 7 thousand claims from nearly 1 thousand politicians between 2007 and 2012. For each claim we know whether it is true, false or half-way.

As noted by Della Vigna and Gentzkow (2010), the efficiency of democracies depends on the accuracy of voters’ beliefs, and a large share of the information on which political decisions are based is provided by agents who themselves have an interest in the outcome. Several empirical papers converge to the conclusion that citizens’ lack of information about the true costs and consequences of alternative economic and social policy proposals critically impacts their policy preferences (see e.g.

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<sup>1</sup> [www.cbsnews.com](http://www.cbsnews.com); Brian Montopoli; Lying Politicians: A fact of life, August 3, 2012.

<sup>2</sup> History is full of aphorisms about the high frequency of lying by politicians. Another often cited example is provided by Otto von Bismarck’s famous observation that “People never lie so much as after a hunt, during a war or before an election.”

<sup>3</sup> Nyhan and Reifler (2013) use the same source of data and conduct a field experiment on US state legislators to evaluate the effect of fact-checking in nine states before the 2012 general election. They show that the threat posed by fact-checking reduces inaccuracy in politicians’ statements. That US politicians are increasingly sensitive to fact-checkers’ ratings is confirmed by statements such as Mitt Romney pollster Neil Newhouse’s “We’re not going to let our campaign be dictated by fact-checkers.” This statement was made at a panel organized by ABC during the 2012 presidential campaign.

Boeri, Boersch-Supan and Tabellini [2002]; Gavazza and Lizzeri [2009]). In turn, this influences the policies that ultimately get implemented by politicians (Boeri and Tabellini [2012]). Relatedly, research in social psychology reveals that people's beliefs are malleable, and that voter awareness on specific issues is quite low, so that susceptibility to persuasion is high (Murphy and Shleifer [2004]). The problem is exacerbated by the known unpredictability of many electoral campaigns (that can be assessed from the usually large gap between polls and electoral outcomes), suggesting that elections often play a decisive role in determining the winners: voters do actually learn, update, or refine their beliefs and preferences *during* elections (Kartik, Squintani and Tinn [2013]), that is right in the phase where most lying is likely to occur.

The very ideal of democracy is allowing informed people to make decisions about competing platforms and candidates and discipline politicians (Barro [1973]), holding them *accountable*. But democracy thrives insofar as truth prevails and falsehood is recognized and marginalized. Hence, the frequency of serious lies told by politicians can be taken as a measure of (bad) health of a democracy, as it is likely to critically affect the accumulation process of "democratic capital" (Persson and Tabellini [2009]). A democratic system characterized by an excess of lying by its political elite rests on shaky grounds and, therefore, is constantly exposed to the risk of a regime shift towards autocracy. The extent of political lying may even be viewed as one of the key dividing lines between democracies and nondemocracies: in dictatorships, propaganda is endemic, as it acts as a shield in the hands of dictators to more easily prevent the people from rebellion against the regime (Arendt [1972]).

The presence of lying in politics is a century-old issue in human public life. It is a recurring theme in political philosophy, moral philosophy and political science, capturing the interest of prominent figures of Western thought, including Plato, Machiavelli, Kant and Tocqueville. Over time, scholarly work on the subject has flourished also due to the fact that, as ample anecdotal evidence confirms, history has witnessed a multitude of relevant lies by prominent politicians.<sup>4</sup>

In the US, lying by politicians is a traditionally serious and extremely hot issue (Violante [2013]). The Pentagon Papers scandal proves that significant lies can be very successful for many years (and even decades), before being detected, even within an

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<sup>4</sup> As to nondemocratic regimes, examples of colossal and systematic lying abound. The Nazi regime had even a Minister of Propaganda (Joseph Goebbels), who launched a massive campaign to persuade the German people that the Jews were their enemies. In order to use Jews as the scapegoat, Hitler spread lies blaming them for all of Germany's problems. Hitler's idea was that people believe even huge lies, provided that you repeat them enough.

established democracy. As to single presidential lies, Dwight Eisenhower deceived the American people over the U-2 incident and had to publicly admit it. John Kennedy lied when he denied having Addison's disease. Lyndon Johnson "told audiences that his great grandfather had died at the Alamo (a touchstone of Texas history), and when this was shown to be untrue, he changed it to the Battle of San Jacinto. But this was not true either." (Pfiffner [2005]). The well-known Watergate scandal eventually led Richard Nixon to resignation. Ronald Reagan was untruthful in claiming that he personally witnessed the liberation of a German concentration camp. In recent times, Bill Clinton underwent a long and heavy storm leading to the House of Representatives impeachment not for cheating his wife with the White House intern Monica Lewinsky, but for falsely denying the affair to the American public and under oath.

However, despite its undeniable relevance, the theme has surprisingly received scant attention from the empirical literature so far. We conjecture that the main reason why this occurred is the lack of reliable data from nonpartisan sources until some time ago. To the best of our knowledge, our paper is the first attempt to provide direct empirical evidence on lying by politicians within an advanced democracy, by quantifying its extent with regard to US national politicians and shedding light on several sources of variation in their propensity to tell lies.

Our data source, the website PolitiFact.com, on a daily basis selects claims that are objectively verifiable and relevant in journalistic terms. In addition, a person reading or hearing each of the chosen claims should wonder: "Is that true?". The consequence of this selection is that our sample is representative of questionable (that is, "not patently true") but unambiguously provable claims, although in general it is likely to oversample false claims and more hotly debated topics. Moreover, our data capture a constant flow of claims by a large number of Democratic and Republican politicians within a long sample period (almost six years), that is a type of data which it would not have been possible to obtain through alternative fact-checking sources.

As we make clear in Section II, it is plausible to view politicians' lies as attempts to self-servingly manipulate voters' beliefs, especially within the electoral game, in order to gain political consensus and improve their relative position (i.e. to either embellish their stature or cast doubts over their competitors). We operationalize this notion by considering factually inaccurate claims that politicians make in favor of

the party they are affiliated to.<sup>5</sup> For example, as far as relevant data such as unemployment or inflation rate are concerned, a politician whose party is in power tells a ‘lie’ if he claims that they are at a *lower* level than they actually are, whereas a politician affiliated to the opposition party lies insofar as he claims they are *higher* than they actually are. In other words, politicians lie, according to our definition, when they not only depart from the truth in their public claims, but also distort it *to their own advantage*.<sup>6</sup> In the Politics 2.0 era, US politicians’ speeches are often prepared by professional speechwriters, read by political advisers and circulated to policy aides for careful reviews, comments and factual corrections. Therefore, we argue that the increasingly consultant-driven nature of American politics reinforces the idea that when a national politician departs from the truth to her advantage in her public claims, this hardly occurs out of ignorance. Moreover, our empirical analysis provides further support on this, by proxying ignorance with a low level of education: we show that 98% of the claims come from college graduate politicians and that the “low education” variable is never significant in our regressions.

Our major findings can be summarized as follows. First, we consider various degrees of untruth of representatives’ claims and show that while many politicians frequently make partly false claims (i.e. what we term ‘grey’ lies; see Section III on this), fewer of them frequently make completely false claims (that is, ‘black’ lies). We also find that the amount of lies told to voters critically depends on political affiliation, with Republicans being more likely to depart from the truth than Democrats. Further, we discover that the probability of lying is significantly affected by the politician’s state of origin. In this regard, our analysis interestingly reveals that politicians lie less if they come from ‘swing’ (or battleground) states. Next, democratic politicians lie less if they come from traditionally Blue states, whereas a similar effect does not hold for Republicans whose state of origin is Red. Untruthful claims are less frequent also when

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<sup>5</sup> Inaccurate claims may alter voters’ opinions in the desired direction through voters’ Bayesian processing of the new information conveyed to them by politicians. We claim that our measure of lying in politics is the analog of the measure used within last years’ growing experimental literature on human lying, where lying is assessed as a subject’s inaccurate reporting that provides personal monetary benefits to her (see e.g. Hao and Houser [2011]; Bucciol and Piovesan [2011]; Fischbacher and Heusi [2013]).

<sup>6</sup> A further example is provided by Republican congresswoman Michelle Bachmann’s claim in 2011 that “Under Barack Obama the last two years, the number of federal limousines for bureaucrats has increased 73 percent.” (see on this the Supplementary Appendix.) This claim has been judged “mostly false” by PolitiFact.com, as available data do not allow to infer that such a huge increase in the number of federal limos actually took place. Bachmann’s goal was clearly to attack the Obama administration for its reprehensible waste of public money, but PolitiFact.com’s assessment indicates that she was rather pandering to voters.

the politician comes from Southern states. As to political topics, lying occurs more often on health-related issues. Finally, with regard to presidential candidates, Obama lies significantly less than his opponents.

The structure of the remainder of the paper proceeds as follows. Section II provides the conceptual framework that will guide the interpretation of our results. Section III describes our data and empirical strategy. Section IV illustrates our core findings. Finally, Section V concludes and provides some directions for future research. The Appendix lists examples of claims and their evaluation from PolitiFact.com, while a separate, Supplementary Appendix<sup>7</sup> assesses the robustness of our analysis.

## II. BACKGROUND

Why do politicians lie? Given the novelty of our empirical analysis, a unified, comprehensive conceptual framework of what exactly determines lying in politics can be sketchy at best. In this section, we outline its basic structure by highlighting the major channels that will guide the interpretation of our core findings. In principle, as noted by Callander and Wilkie (2007), “The source of a candidate’s ability to lie can be many and varied. We caution against interpreting the willingness of a candidate to lie as purely a moral issue. In essence lying is an ability, and variations of this ability, as well as the willingness to utilize it, can arise for a variety of moral, personal, or societal reasons. For example, party affiliations as well as political histories often impose constraints on what can be credibly claimed by different politicians.”

In particular, we conjecture that two distinct (broad) classes of determinants significantly affect politicians’ propensity to tell lies to voters: a strategic motive such as the desire to gain political consensus by altering voters’ beliefs without being caught (*political consensus*) and the (more or less subconscious) influence of their socio-economic, political and cultural background (*personal history*).

As to the “political consensus” motive, the starting point is the observation that politicians engage towards voters in what is known as “persuasive communication”, occurring when a message is provided by one agent (a sender) with at least a potential interest in changing the behavior of another agent (a receiver; Della Vigna and Gentzkow [2010]). Hence, a clear temptation arises, for a politician, to send untruthful messages in order to improve his relative position in front of voters and, during an

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<sup>7</sup> Downloadable at [https://sites.google.com/site/abucciol/assets/lying\\_appendix.pdf](https://sites.google.com/site/abucciol/assets/lying_appendix.pdf).

electoral campaign, to alter voters' beliefs about himself and his opponents as well as about the policies that will be implemented (Aragones, Palfrey and Postlewaite [2006]). If a politician, by departing from the truth and being undetected, succeeds in either embellishing his stature (positive campaigning) or in casting doubts in the electorate over his competitors' profile (negative campaigning), or both, then his chances of winning will be higher, other things being equal.<sup>8</sup> This is likely to make the perceived return from lying very high, in the politicians' eyes. Relatedly, a well-known fact about US politics is that the strength of a political movement depends to a significant extent on the willingness of its supporters to contribute in financial terms, so that effective fundraising is crucial for electoral success (Benoit and Marsh [2008]): undetected lying is likely to also serve the goal to persuade donors and raise money for a candidate and his party.

However, since also in the political market the supply of persuasion is endogenous (Della Vigna and Gentzkow [2010]), understanding the factors that determine the supply of untruthful messages in equilibrium requires an adequate consideration of senders' overall incentives. In particular, though politicians are tempted to distort information, "a countervailing force for accuracy is the desire to build a *reputation*: if receivers are rational, senders may benefit from committing to limit the incentive to distort, or to report accurately" (italics added; see on this also Ottaviani and Sorensen's [2006] model of reputational cheap talk). Within a democratic political system, unlike in other environments where lying may occur, reputational concerns are far from negligible and this is something that a politician is usually aware of, when assessing the costs and benefits of lying: liars would like not to reveal their mendacity.<sup>9</sup> Callander and Wilkie (2007) illustrate a theoretical model incorporating lying by electoral candidates and show that electoral competition imposes a natural constraint on the advantage of lying that binds even in the absence of a direct voter preference for

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<sup>8</sup> Moreover, as we observed in the introductory section, the unpredictability of electoral campaigns makes it plausible to believe that what politicians say in these phases plays a decisive role in determining the winners. Further, while for decades the prevailing view among scholars was that persuasive communication had minimal effects, recent studies in political science have identified strong relationships between exposure to political communications and voting behavior (Della Vigna and Gentzkow [2010]). More broadly, lying in politics can be placed within the theoretical literature on strategic transmission of private information (see e.g. Crawford and Sobel's [1982] model of partisan cheap talk).

<sup>9</sup> In this regard, market structure plays a key role: while a sender in a competitive market where the audience cares sufficiently about accuracy and consumers have largely rational beliefs has incentives to establish credibility, this is not true for a monopoly sender (Della Vigna and Gentzkow [2010]). This is why, as we pointed out in footnote 4, in dictatorships leaders lie systematically and do not hesitate to tell even colossal lies to the people.

honesty. They interestingly find that while candidates with higher willingness to lie are favored in elections, chances are that more honest candidates prevail. Next, the presence of each candidate type has a relevant impact on the behavior of all other candidates. As highlighted by Callander and Wilkie (2007), despite a pervasive presence in politics, lying has not traditionally played a role in formal models of elections. In the last years, several theoretical papers in the political economy literature have attempted to fill this gap. However, it is important to note that while most theoretical models in the political economy literature on elections focus on the consistency between campaign promises and subsequently enacted policies (and view lies as “broken promises”), we rely on a measure of lying in politics capturing the inaccuracy of politicians’ claims. The major problem we see with the former definition is that at the empirical level many confounding factors are likely to interfere between a politician’s (ex ante) intention and her ability to fulfill her promise once in office: actual policies are often the outcome of complex politico-institutional processes and may well fail to reflect politicians’ will, even when they believe in their electoral claims with utmost sincerity and are fully determined to pursue their goals.<sup>10</sup>

On the whole, then, distorting the truth seems to be a double-edged sword, for politicians: it can be a highly effective persuasion tool when undetected, but, if lying gets eventually detected, the reputational damage for the liar can be far higher.<sup>11</sup> In light of this, the seemingly high frequency of lying in American politics today is *prima facie* puzzling, especially for an established democracy where third-party accountability (e.g. via nonpartisan media pressure and – more recently – via independent fact-checkers as the one we take our data from in this paper) is important and citizens, for cultural and historical reasons, are traditionally more sensitive to politicians’ morality than in less consolidated democracies where voters are more tolerant (Brender and Drazen [2007]; Violante [2013]).

A first plausible reason why today politicians in the US seem to have lost their fear of getting caught lying has to do with the demand side of the political market, as over time a sort of cynical acceptance and justification of lying in politics as “part of the

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<sup>10</sup> This implies that even famous promises that many people would definitely read as deliberate falsehoods, such as George Bush’s “Read my lips: no new taxes” in 1998 in the US or Silvio Berlusconi’s “one million new jobs” in 1994 in Italy, do not fit our definition of politician’s lie.

<sup>11</sup> As Armstrong-Taylor (2012) notes: “A politician who admits to wrongdoing will likely suffer some loss of popularity, but probably not as great as if he denied wrong doing and was subsequently discovered to have lied.”

political game” has been emerging among American voters.<sup>12</sup> A 2012 Gallup poll reveals that Americans rank nurses and doctors first on a honesty scale, while governors, senators and especially members of Congress are at the bottom (only car salespeople have a lower reputation; see the Supplementary Appendix.)<sup>13</sup> This trend may help explain why politicians do lie so much, despite the potentially enormous reputational costs associated with cheating: dissatisfaction among voters implies incurring lower reputational costs from being detected lying, in the eyes of politicians. US voters’ discontent with their representatives’ lack of truthfulness is so high that they have been updating their priors and downplaying their expectations over politicians’ morality. The Gallup poll mentioned above also displays a sharp decline over time in the trustworthiness of the politicians (see the Supplementary Appendix.) This seems to occur especially in a partisan fashion, with voters being more indulgent towards their own party.<sup>14</sup>

A related demand-side driver has to do with growing evidence documenting something deeper than a simple discontent coupled with a (possibly party-sensitive) passive acceptance of lying by politicians on the part of dissatisfied voters: a *taste for confirmatory information*. Recent findings clearly suggest that, in searching for news, some consumers, far from being rationally interested in accuracy and objectivity of information only, display a preference for belief confirmation, i.e. they prefer like-minded information sources. In other words, they would like to avoid their personal beliefs being challenged by knowing about certain kinds of facts (Gentzkow and Shapiro [2008]). Therefore, if, say, a left-wing voter has a strong preference for belief confirmation, he will prefer *not to discover* whether a Democratic politician tells the truth or not, as learning that his candidate has lied would conflict with his prior beliefs.<sup>15</sup> In turn, suppliers are likely to distort information to cater to this taste, so reducing the accuracy of consumers’ beliefs (Mullainathan and Shleifer [2005]).<sup>16</sup>

Another factor that is likely to lower the probability that politicians’ lies are detected has to do with the fact that in the politics 2.0 era, political news run fast and

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<sup>12</sup> [www.cbsnews.com](http://www.cbsnews.com); Brian Montopoli; Lying Politicians: A fact of life, August 3, 2012.

<sup>13</sup> <http://www.gallup.com/poll/1654/honesty-ethics-professions.aspx#1>. See Thompson (2011) for similar results.

<sup>14</sup> See on this a recent contribution by Dan Ariely: <http://danariely.com/2012/07/30/partisan-standards-of-ethics>.

<sup>15</sup> Westen et al. (2006) present neuroimaging evidence supporting the idea that some voters are driven by “motivated reasoning”, that is reasoning biased to produce emotionally preferable conclusions.

<sup>16</sup> Gentzkow and Shapiro (2010) provide large-scale empirical evidence on the determinants of political slant in the US newspaper markets, showing that readers have an economically significant preference for like-minded views, with firms strongly responding to them.

virally through the web (including social networks) so that they quickly get old (Violante, 2013). This – together with the generally far lower attention paid by the media to criticisms of politicians’ claims, compared to the claims themselves – is likely to enhance politicians’ temptation to lie, *ceteris paribus*. Finally, it is worth noting that a defining feature of lying in politics is that here it is the case that, unlike other settings where persuasive communication takes place (i.e. when the targets of persuasion are consumers, donors, or investors),<sup>17</sup> liars *rarely face legal sanctions* for sending false messages to the receivers (i.e. voters).<sup>18</sup>

As we pointed out at the beginning of this section, even though existing theoretical work on politicians’ attitudes towards lying makes it natural to mainly focus on the *internal* motivating factor that we labeled the “political consensus” motive, it is plausible to believe that also nonstrategic determinants, possibly related to *external* channels, play a non-negligible role in affecting politicians’ propensity to lie. In this regard, a growing stream of economics literature has been shedding light on the importance of the cultural, political and socio-economic environment in which individuals grew up in shaping their current values, preferences and/or beliefs. For example, Alesina and Fuchs-Schundeln (2007) interestingly offer evidence that living under Communism significantly impacted individual preferences for redistribution in later life, possibly due to indoctrination. Similarly, Alesina and Giuliano (2010) document the influence of individual history on the same type of preferences, with a history of misfortune inducing people to be more in favor of redistributive policies. Next, recent work indicates that history and culture significantly shape attitudes towards risk (Dohmen et al. [2010]). Malmendier and Nagel (2011) explore the impact of a large macroeconomic shock such as the Great Depression on the risk attitude of “Depression Babies” later in life. Therefore, in light of this new but rapidly expanding literature, we conjecture that also politicians’ propensity to lie may be not only driven by the search for political consensus, but also shaped to a significant extent by their personal history and, in particular, by relevant features of the socio-economic, political and cultural environment in which they grew up.

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<sup>17</sup> For example, in finance frauds are severely sanctioned in many countries (and especially in the US). Bernard Madoff, who used a Ponzi scheme to keep up his colossal fraud for more than a decade and eventually admitted that his investment firm was “just one big lie”, was sentenced in 2009 to the maximum 150-year prison term and was ordered to forfeit \$170.8 billion. His lie was a particularly shocking one, as he had been considered a respected expert in the financial field.

<sup>18</sup> A well-known exception in recent American history was Clinton affair. As suspicions that he had an affair with a White House intern mounted, then-President Clinton publicly denied the allegations. Since then it turned out that he committed perjury, as he had lied even under oath, and obstruction of justice, there were grounds for impeachment.

### III. DATA

Even though in the US it has long been taken for granted that competition in news markets promotes truth, many have questioned whether this kind of competition is so obviously beneficial, as it may lead to cutbacks in reporting and editorial quality (Gentzkow and Shapiro [2008]). Next, falsehoods can persist for long periods even in the presence of competition, as on most issues mass media have a lot of power, being the only or major source of information for citizens and enjoying considerable freedom in deciding what is newsworthy and what is not (Puglisi and Snyder [2011]). As pointed out by Gentzkow and Shapiro (2008), “Even if governments do not attempt to manipulate the media, firms themselves may have incentives other than accurately reporting the truth” (p. 139). As they observe, in the US leading outlets such as the *New York Times*, CBS News and Fox News are frequently accused of pursuing ideological agendas. In other words, partisanship is likely to heavily influence outlets’ propensity to tell the truth. Abuse of the agenda-setting power can be viewed as one of the most dangerous forms of media bias, especially if it occurs to suppress information.<sup>19</sup> Recent evidence indicates that partisan media tend to filter or slant information in order to shift vote shares in favor of their preferred parties (Della Vigna and Kaplan [2007]; Gentzkow, Shapiro and Sinkinson [2011]). Relatedly, in news markets there are key demand-side distortions that make it likely for media persuasion strategies to be successful even in the presence of competition, such as voters displaying a preference for news sources to confirm their prior beliefs (Gentzkow and Shapiro [2008]; see also Section II on this).

Hence, available evidence on (both supply-based and demand-based) media bias casts doubt on one of the basic tenets of free media: their duty to help the public prevent malfeasance (and lying in particular) on the part of politicians. In light of these problems, the complementary role of new actors such as fact-checkers is potentially hugely important, in order to inform citizens about their representatives’ wrongdoings. Fact-checking is a new bottom-up accountability tool and, in the last years, it is becoming a more and more influential genre of political journalism in the US (Graves and Glaisyer [2012]) and in other countries. The growingly important presence of

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<sup>19</sup> Puglisi and Snyder’s (2011) empirical analysis on the coverage of US political scandals by US newspapers reveals that Democratic-leaning newspapers pay far more attention to scandals involving Republican politicians than scandals involving Democratic politicians, and that Republican-leaning newspapers tend to do the opposite.

independent, objective referees is crucial for the health of a modern democracy relying on appropriate checks and balances.

Our data mainly come from the national section of the website PolitiFact.com ([www.politifact.com](http://www.politifact.com)), created and managed since 2007 by the independent newspaper Tampa Bay Times published in Florida. The website serves as an impartial watchdog of political news, checking and reporting the accuracy of claims publicly made in the media (talks, newspapers, television, etc.) by elected officials at all levels of government, candidates, leaders of political parties, political activists as well as lobbyists, talk show hosts, economists and columnists. Typical users of the website are political decision makers, large donors, influential professionals and – in general – wealthy and highly educated individuals. The website is made of a national section plus ten local sections. However, our analysis will focus solely on the national section, which refers to national politicians (that is, mainly Members of Congress and candidates to Congress) only. We prefer not to mix national and local politicians, as their behavior may be driven by different reasons.

PolitiFact.com is arguably the leading media fact-checker in the US: its work has been awarded (among others) a Pulitzer Prize in 2009 (the first ever for an initiative started online), and its findings are frequently cited in the media. Compared to alternative fact-checkers<sup>20</sup>, it collects a far larger number of statements over a longer time period, and from a wider range of individuals. It is therefore the ideal source for our analysis. PolitiFact.com adopts a standard, rigorous procedure: a reporter first isolates a claim from a longer speech and evaluates it within the context; she then contacts the press office of the politician for any clarification, and then makes her own assessment on the correctness of the claim. The assessment is always based on official statistics: this is possible because the claim reports a ‘fact’ rather than a ‘promise’ or an ‘opinion’, which cannot be checked by means of objective data. The reporter’s assessment is finally reviewed by a panel of at least three editors before getting published. PolitiFact.com assures to be independent and non-partisan in its assessment. In this paper we will use the information as ranked in the website.

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<sup>20</sup> The two main competitors of PolitiFact.com are FactCheck.org ([www.factcheck.org](http://www.factcheck.org)) and the Washington Post’s Fact Checker (<http://voices.washingtonpost.com/fact-checker>). All these fact-checkers regularly collect claims since the end of 2007 (only FactCheck.org reports few earlier claims). However, PolitiFact.com lists many more claims: for instance in 2012 we use 2,308 claims in our analysis, while the other two websites list around 400 claims each. Moreover, FactCheck.org does not provide a mark but only a qualitative assessment of the claim, which makes it useless for our purpose.

Not necessarily claims are either completely true or completely false. Indeed reporters and editors of PolitiFact.com examine claims and rate their accuracy on the so-called “Truth-O-Meter”, based on a six-level scale. In reverse order of truthfulness, the levels and their definition according to the website are the following:

- *True*: The statement is accurate and there is nothing significant missing.
- *Mostly true*: The statement is accurate but needs clarification or additional information.
- *Half true*: The statement is partially accurate but leaves out important details or takes things out of context.
- *Mostly false*: The statement contains an element of truth but ignores critical facts that would give a different impression.
- *False*: The statement is not accurate.
- *Pants on fire*: The statement is not accurate and makes a ridiculous claim.

The last level of the scale (“pants on fire”) is relatively rare (6.76 percent of the claims in our sample), while the other five levels are evenly widespread in the sample. For each claim, the website provides a motivation of the assessment, citing any source taken into account; see the Appendix for examples of claims and their assessment. From the six scale levels we create two dummy variables summarizing the information on whether the claim is false or not: one (*narrow definition*) is equal to one if the claim is declared “false” or “pants on fire” (i.e. it is a ‘black’ lie), and zero otherwise; the other (*broad definition*) is equal to one if the claim is declared “half true”, “mostly false”, “false” or “pants on fire” (that is, it is either a ‘black’ or a ‘grey’ lie)<sup>21</sup>, and zero otherwise. The two definitions then differ only in the way “half true” and “mostly false” claims (i.e. grey lies) are treated. The distinction between a narrow and a broad definition is aimed at comparing the propensity to tell black lies only as opposed to black and grey lies.<sup>22</sup>

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<sup>21</sup> Therefore, we view claims that are only partly true, such as “half true” and “mostly false” claims, as grey lies. We introduce this terminology to (also chromatically) separate out partly false claims from both classic plain lies (i.e. black lies) and so called harmless or even pro-social lies (i.e. white lies; see on this Gneezy [2005] and Erat and Gneezy [2011]). A recent example of white lie in politics is Barack Obama telling kids that his favorite food is broccoli (while this is clearly not the case) at a healthy lunch children’s event hosted by his wife at the White House.

<sup>22</sup> In the Supplementary Appendix we report further results from the same analysis, where the dependent variable is an intermediate definition of false claim, equal to one if the claim is declared “mostly false”, “false” or “pants on fire” and zero otherwise.

Claims are gathered in the website by subject (e.g., abortion, bankruptcy, housing, etc.). Our dataset includes a sample of 77 subjects, and excludes few subjects that are not central in politics (and usually have a small number of entries), such as arts, lottery, or pop culture. We grouped the claims into eight broad topics (Economy, Health, Labor, Policies, Public finance, Security, Taxes, and Values) depending on their content and based on the 77 narrower subjects used in the website. We keep on its own only the subject ‘taxes’, because it already includes many claims, and because it is a hot topic in politicians’ speeches. The Supplementary Appendix lists all our topics and the subjects they include.

We collected political claims from PolitiFact.com since the first available (dated March 21 2007) up to December 31 2012; the data period covers two presidential election campaigns (2008 and 2012) and one mid-term election (2010). For each claim we know the person who made it, which allowed us to retrieve through the Internet basic demographic information on her birth year, gender, and education. In addition we know from PolitiFact.com the political party and the US state of origin of the speaker.

In the analysis we consider only claims made by national politicians rather than, e.g., bloggers, famous persons, or journalists. In addition, we restrict our attention to the two main parties (Democratic and Republican) which account for 97% of all the claims made by politicians. Overall we have 6,892 claims involving 948 politicians. The average politician is 55 years old, male (in 78 percent of the cases), Republican (52 percent), college graduate (98 percent), from the South (49 percent) and makes 7.27 claims over the period, about one third (32 percent) of which are completely false and another third (35 percent) are mostly false or half true. Table I reports summary statistics on the variables in our dataset, based on the full sample of claims.

We also treat time-invariant variables to capture the influence of the state of origin. At the time they make the collected claims, politicians are likely to have moved from the state where they were born. However, as we hypothesized in Section II, their current behavior may (more or less subconsciously) be influenced by relevant features of the background environment where they grew up (that we view as “personal history” determinants of politicians’ propensity to lie). To account for this, we use dummy variables informing on whether the politician grew in one of the four standard macro-areas of the US, namely North-East, Mid-West, West, and South. In addition, we account for the role of state-specific variables capturing political, socio-economic and value-related factors.

First, to capture the influence of the political environment where the politicians grew up, we label a state as Blue, Red or ‘swing’ (that is, battleground) based on its outcome on the six presidential elections held between 1984 and 2004 (the last presidential election year before our sample starts.) Specifically, we label a state of origin as Blue (Red) if the Democratic (Republican) party won in the state at least five out of six presidential contests; otherwise we label it as swing.<sup>23</sup> We believe this 20-year definition well captures the prevailing political color (if any) of the state where the politician grew up.<sup>24</sup>

Next, to investigate the effect of socio-economic and value-related factors, we collect three variables from the US Census Bureau: the logarithm of real per capita disposable income (to measure economic well-being), the percentage of college graduates (to measure education) and the census response rate (a proxy for civic responsibility, as in Knack [2002]). All these variables refer to 1990, a year where most politicians in the sample were young. Finally, we collect three self-assessed state-specific variables from the DDB Needham lifestyle survey: the percentage of people who ‘need’ to get the news every day<sup>25</sup> (a measure of people’s attention to current discussions), the percentage of people believing that most others are honest (a measure of social capital), and the percentage of people reporting that religion is important in their life (a measure of religiosity). The last two indicators should capture a state-wide moral attitude to ban or tolerate misconduct: since religions and moral systems positively value truth-telling and discourage lying (Abeler, Becker and Falk [2012]), it is plausible to suppose that higher social capital and religiosity areas are associated with a higher intrinsic cost of lying (Kartik [2009]) and, therefore, with higher reluctance to lie, other things being equal. DDB Needham is an advertising firm annually running a survey on individual lifestyle at the state level, excluding Alaska and Hawaii; for this reason in the analysis we look at politicians from continental states only. These survey data were publicly provided by Robert Putnam (see Putnam [2000] for further details). Importantly, the author ran validity tests on these data and found that they are

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<sup>23</sup> As a result of this classification, the swing states are the following: Arkansas, California, Connecticut, Delaware, Florida, Illinois, Iowa, Kentucky, Louisiana, Maryland, Michigan, Missouri, Nevada, New Hampshire, New Jersey, New Mexico, Ohio, Pennsylvania, Tennessee, Vermont, and West Virginia.

<sup>24</sup> However, we also ran robustness checks using both broader and narrower definitions of swing state. In the Supplementary Appendix we explain our procedure and our findings. Although states may change their “political color” depending on the definition we use, our main results are preserved.

<sup>25</sup> The exact wording of the statement in the questionnaire is “I need to get the news (world, national, sports, etc.) everyday”.

representative of actual states' population.<sup>26</sup> The variables we use refer to the 1986-1998 period, for which all the three indicators are available at the same time.<sup>27</sup>

TABLE I ABOUT HERE

In our sample politicians more frequently talk about public finance and policies, and less frequently about taxes (see Figure I). The distribution of political claims by topic is roughly similar between the two parties.

FIGURE I ABOUT HERE

Black lies are more frequent on health-related issues (see Figure II). A similar pattern also emerges when treating grey lies together with black lies. A plausible interpretation is that politicians' propensity to lie is higher on health-related issues as on these issues, due to their technical nature, citizens are at a greater informational disadvantage compared to other topics. Hence, consensus-oriented politicians will be tempted to lie more on such issues, other things being equal, as it will be comparatively more difficult to be caught lying (and incur the associated reputational costs).

FIGURE II ABOUT HERE

#### IV. ANALYSIS

This section is divided in three parts. First, it focuses on prominent politicians' determinants of lying, by considering variables related to both "political consensus" and "personal history" determinants (Sub-section IV.A). Second, it looks at the whole sample of national politicians and adds in the regression the topics of the single claims, and the period in which they were made (Sub-section IV.B). It also separately examines

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<sup>26</sup> As a further robustness check we replaced the three variables from the DDB Needham Lifestyle survey with similar ones from the US General Social Survey (GSS), reaching the same conclusions. We prefer the specification including the variables created from the DDB Needham Lifestyle survey because the publicly available version of the GSS data splits the sample in nine macro-areas and does not allow to identify information at the state level.

<sup>27</sup> In addition to the state-level variables described above, we ran experiments using further variables, and in particular an index measuring the state-wide corruption of public institutions in 2012 (source: [www.stateintegrity.org](http://www.stateintegrity.org)). Our results do not change after including such variable (which shows no significant effect.) However, we prefer not to include it in the benchmark analysis because it refers to a recent year – in contrast to all the other state-level variables.

Democrats' and Republicans' determinants of lying. Third, it studies the behavior of the presidential candidates during the 2008 and 2012 campaigns (Sub-section IV.C).

In Sub-section IV.A, the analysis is performed by means of a panel fractional response logit model where the dependent variable is the fraction of false claims made over the period by *prominent politicians*, that is politicians with at least four claims. In the rest of the section, the analysis is performed by means of a random-effect panel logit regression method on each single claim, where the dependent variable is a dummy equal to one if the claim is false and zero otherwise.<sup>28</sup> The contribution of within-politician variability to the overall variance of the error term is generally high (the parameter 'rho' is around 0.5), indicating the need for panel models. For our purpose a random-effect model is more appropriate than a fixed-effect model because it allows to estimate the effect of some key variables (e.g., demographic and state-specific ones) and preserve the contribution of observations regarding politicians making either only false claims or only true claims.<sup>29</sup> In what follows, we comment only on effects significantly different from zero at a 5% or lower level.

#### ***IV.A. Prominent Politicians Mainly Tell Grey Lies***

We first look at prominent politicians, that is politicians making a significantly large number of claims. Specifically, we consider the 364 politicians (out of the 949 politicians in the sample) with at least four claims in our dataset. For each politician, we compute the fraction of false claims. Figure III plots the distribution of this fraction among the politicians, considering as false claims either the narrow definition of black lies (panel a) or the broad definition (panel b), which also includes "mostly false" and "half true" claims that we label grey lies. We recall that our data are likely to oversample false claims. However, false claims seem rather common: on average for a politician in this sub-sample 29% of the claims are false and 36% are mostly false or half true. Interestingly, the figure shows that, although a large number of politicians frequently make false or half true claims (for 78% of the 364 politicians, claims are more likely false, mostly false or half true), most politicians make a limited number of

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<sup>28</sup> We do not work with panel ordered logit models for two main reasons: they are more complicated to interpret than panel logit models; often with this dataset they do not reach convergence of the estimates and, when they do, they happen to be highly sensitive to the inclusion or removal of variables in the specification.

<sup>29</sup> With a fixed-effect estimator, our sample size would drop from 6,892 to 5,219 observations on completely false claims and 5,456 observations on false or half false claims.

completely false claims (22% or less for half the politicians).<sup>30</sup> This suggests that prominent politicians are cautious with regard to black lies, whereas they are far less reluctant to tell grey lies. In politics, the lying game usually unfolds on many levels and grey lies, that is untrue claims other than completely false ones, may be viewed as the analog of “incomplete lies” reported by recent experiments on human lying (see e.g. Hao and Houser [2011]; Fischbacher and Heusi [2013]).<sup>31</sup> But why do politicians misrepresent the facts by telling grey lies, instead of complete lies? A plausible rationale is that politicians (and prominent politicians in particular) are mainly driven by the search for political consensus and believe that a grey lie, being based on a subtle distortion of the truth, will make the latter harder to discern and, therefore, will make accusations by the media or other parties *easier to handle*, compared to a blatant lie (see on this also Arendt’s [1972] insightful considerations). In case of incomplete lies, a politician can better defend himself by either belying or rectifying and providing a different interpretation of a given claim in order to object that he was not really lying on that issue (e.g. by asserting that there was no lying but at worst ‘misspeaking’ or “exercising poor judgment”; see on this Keyes, [2004]). This will substantially weaken the accusation and reduce the reputational damage that the detection of the lie would determine. As Democratic strategist Simmons effectively put it: “The dirty secret of political campaigns is there is no referee calling fouls and handling out penalties.” In increasingly consultant-driven campaigns, the fear for many citizens is that politicians view accuracy as a secondary concern.

### FIGURE III ABOUT HERE

Having provided some evidence in favor of the claim that politicians tell lies and that heterogeneity exists in their willingness to lie (in line with recent experimental evidence on lying in general), we now turn to analyzing its major sources of variation. In particular, we look for correlations between the propensity to lie and variables related

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<sup>30</sup> Our distributions of both black and black and grey lies on the part of prominent politicians show that a significant degree of heterogeneity exists, in politicians’ lying. This parallels findings from recent experiments on lying outside politics such as Gneezy [2005] and Gibson, Wagner and Tanner [2013], providing strong evidence of heterogeneity in individuals’ preferences for truthfulness.

<sup>31</sup> According to these authors, some individuals are prevented from lying fully because they care about having *favorable traits* (Fischbacher and Heusi [2013] or because they have a preference for *appearing honest* (Hao and Houser [2011]). A third possible explanation is *guilt aversion*: people telling incomplete lies know they are lying, but they would feel guilty if they exaggerated.

to the two broad classes of determinants highlighted in Section II: “political consensus” and “personal history”.

Table II shows the average marginal effects from a regression on the 364 prominent politicians, where the dependent variable is the fraction of false claims. We follow Papke and Wooldridge (1996) and use a panel fractional response logit model, estimated with Bernoulli quasi-maximum likelihood and standard errors robust to heteroskedasticity. Results are similar using traditional OLS models (output tables are available upon request) that, however, suffer from several shortcomings when the dependent variable is a fraction: among others, they do not allow for non-linear effects of the explanatory variables, non-normal errors, and in particular they do not recognize that the dependent variable is bounded in the 0-1 range. The fractional response logit model is instead specifically suited to deal with this kind of dependent variable.

Our specification first includes personal characteristics of the politician (age, gender, party, education), our two major “personal history” variables (state and the macro-area of origin) and the number of claims included in the dataset – that we take as a proxy for politicians’ prominence. Completely false claims are 13% more likely among Republicans and less likely (between 10 and 12 percent) for those born in the West or South compared to the other regions of the US (Column 1). False or half false claims are also 14% more likely among Republicans and 13% less likely for those born in the South (Column 3). Prominence seems to play a negative role only regarding the completely false claims, which indicates that prominent politicians lie to a smaller extent than less famous ones. It is plausible to conjecture that reputational concerns are stronger for them. The finding on the role of political party affiliation supports previous evidence based on descriptive statistics from PolitiFact.com.<sup>32</sup> To the best of our knowledge, however, this is the first attempt to econometrically assess the correlation between false claims and several characteristics of the politicians by using a large number of claims, covering almost six years, by a large number of politicians.

Columns 2 and 4 of Table II add to the specification the following state-level control variables (illustrated in Section III and aimed at capturing potentially important relevant features of the political, socio-economic and cultural environment where they grew up): election orientation (swing vs. non-swing states), objective information on disposable income, level of education and census response rate, plus self-assessed information on the rate of people regularly receiving news, the perceived honesty level

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<sup>32</sup> See, e.g., [http://www.cmpa.com/media\\_room\\_press\\_05\\_28\\_13.html](http://www.cmpa.com/media_room_press_05_28_13.html).

and the importance of religion. The result on Republican politicians mentioned above is preserved. Interestingly, we now lose most of the macro-area of origin effects, which are instead absorbed in the swing state variable: being born in a swing state reduces by 11 (16) percent the number of claims that are false (false, mostly false or half true.) A plausible interpretation of this effect is that growing up in a state where electoral outcomes are often uncertain (more or less subconsciously) induces a politician to be more cautious in her public claims and reduces her propensity to tell lies, other things equal.

TABLE II ABOUT HERE

#### ***IV.B. Single Claims***

We now turn our focus on single claims made by all politicians. Tables III and IV report average marginal effects from random-effect logit regressions where the dependent variable is a dummy equal to 1 if the claim is false, and 0 otherwise.

#### **Party Affiliation**

We start from Columns 1 and 4 of Table III, that include in the specification the personal characteristics of the politician, plus macro-area of origin and year dummies. We learn that the behavior is qualitatively identical for completely false and half false claims: claims are 15.9% (11.7%) more likely to be black lies (black or grey lies) among Republicans and 9.3% (13.9%) more likely in year 2009 – the year in which the economic crisis had its most severe and dramatic impact on the US population.<sup>33</sup> Finding that Republicans’ propensity to lie is significantly higher not only with regard to the subsample of prominent politicians, but also with regard to our whole sample of politicians suggests that party affiliation imposes significant constraints on what politicians tell in their public claims.

Why does politicians’ propensity to tell lies seem to change as a function of being in a particular political party? A plausible ‘tactical’ explanation has to do with the well-known “incumbency advantage”: during most of our sample period, the incumbent President was a Democrat and the challenger was a Republican. Therefore, it is possible that Republican politicians (including the two presidential candidates) – like a soccer

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<sup>33</sup> In a robustness check (not reported) we do not find any relevant difference among quarters of the same year. Lies do not even seem more frequent in the months just before the presidential or mid-term elections.

team that is losing the game and decides to attack more aggressively the competitor to avoid defeat (knowing that conceding a further goal wouldn't make a difference) – decided to lie more and run the associated risk hoping that lies would help them come back and close the gap with their incumbent opponents. A possibly complementary answer has to do with recent converging evidence from political neuroscience studies, finding significant correlation between brain structure and psychological mechanisms that mediate liberal vs. conservative political attitudes (see in particular Amodio et al. [2007]; Kanai et al. [2011]).

### **State and Macro-area of Origin**

We then add our state-specific variables (Columns 2 and 5 of Table III), aimed at capturing key features of politicians' socio-economic, political and cultural background, and find that the party and year effects cited above are preserved. We now see that false claims are 11.9% less likely in swing states, in line with our finding in Sub-section IV.A.

We also see that a 1% increase of the college graduate rate reduces by 2.9% the probability to make false claims. This suggests that, other things being equal, politicians are more cautious when they come from highly educated states, where the average person is likely better informed about politics, as if they perceived as higher the probability to get detected, in case of black lying. Our finding reinforces the widespread view that education is important for democracy (Glaeser et al. [2004]) by identifying a new channel through which this positive correlation may emerge: the reduction in politicians' propensity to lie in their public claims in later life.

Politicians are also less likely to lie if they come from Southern states. This macro-area effect might be due to the fact that, especially in the recent past, the American South has been characterized by a prevalence of traditional values, with strong family ties, high religious attendance rates and a widespread "culture of honor", that is a set of social norms preventing people from intentionally offending others (Nisbett and Cohen [1996]).

Taken together, our results on the relevance of state and macro-area of origin seem to extend to the issue of politicians' lying the view expressed by Glaeser and Ward (2006) about American political geography: they argue that America has an astonishing degree of cultural diversity and while the division of the nation into Red and Blue states is important, along most dimensions states are rather on a continuum. Our

findings suggest that these realities about US political and cultural geography are crucial for our understanding of the determinants of politicians' propensity to tell lies.

### **Topics**

We then compare the eight topics in which we grouped politicians' claims. Dummy variables for the topics are included in the specification (the excluded category is 'policies'). Average marginal effects are reported in Columns 3 and 6 of Table III. Again, our previous results are confirmed. In addition, we see that completely false claims are more likely to be made on health-related issues (by 5.1%) and less likely on economy and labor (by 4.4% and 6.3% respectively). Completely false or half false claims are again more likely on health (by 13.9%) and the economy (by 4.1%). It seems that politicians, searching for political consensus, reduce their propensity to tell black lies on concrete issues regarding the daily economic condition of the citizens, whereas, as we noted in Section III, they tend to lie more frequently on a more technical subject such as health, where it is likely that they perceive a significant informational asymmetry between themselves and the voters.

TABLE III ABOUT HERE

### **Education**

As we argued in Section I, the claims that we view as lies are not only factually inaccurate: their content is also systematically biased in favor of the party the politician who made them belongs to. This is why we are confident that it is possible to detect (behind representatives' words) an intention to depart from the truth and this way gain political advantage. Next, we noted that most of the claims in our dataset were prepared earlier by the politician's staff – that therefore had the time and the duty to professionally check the accuracy of the sources. However, we decided to further corroborate the idea that politicians make false claims due to a willingness to lie, rather than out of ignorance over the facts they refer to. To this aim, we chose to proxy ignorance with a low level of education. In the sample, 98% of the claims come from college graduate politicians. In addition, the "low education" variable was never significant in our analysis. However, politicians with low education could make false claims more frequently on some topics than in others because of ignorance. Interacting education with the topic can reveal whether this is the case. If some of these interactions

are significant, we may conclude that ignorance on specific topics may be an alternative explanation for false claims. This analysis is performed in Columns 1 and 4 of Table IV.<sup>34</sup> Since none of the interaction terms is significantly different from zero, we conclude that false claims are not driven by ignorance.

### **Democrats, Republicans and their State of Origin**

Democratic and Republican politicians may have passed through significantly different experiences influencing their propensity to lie not only due to party affiliation (as we have shown above), but also depending on their personal history and, in particular, on their origin from a state traditionally voting for the same party or the opposite one. Here we investigate this issue by treating Democrats and Republicans *separately*, and running for each party the regressions of Columns 3 and 6 of Table III – with the only difference that the ‘swing state’ variable is now replaced by dummy variables indicating whether the state of origin is ‘safe’ in the sense that it mainly voted for either Democrats or Republicans in the past. Let us recall that when the state is neither Blue nor Red, it is considered swing in our definition.

The output of this analysis is reported in Columns 2-3 of Table IV for black lies, and in Columns 5-6 of the same table for black and grey lies. Interestingly, we see that Democrats lie more frequently if they come from traditionally Blue states: the probability to lie completely (completely or partly) grows by 17.3% (21.5%). A possible interpretation of this behavior is that Democratic politicians who grew up in safe states are less used to uncertain electoral outcomes and, therefore, feel less compelled to adhere to the truth, in their public claims. They may also expect their voters to be driven to a relevant extent by a preference for belief confirmation (see Section II on this). As far as Republicans are concerned, we find that they lie significantly more in 2009 and 2010, compared to our 2007-2008 benchmark, in terms of both black and grey lies. We believe that part of this significant increase in lying may be attributed to a “Tea Party effect”: the Tea Party movement, known for its strongly conservative-libertarian agenda, rose to prominence in 2009 and recent evidence shows that it led to an increase in vote for the Red party in the 2010 mid-term elections (Madestam et al. [2013]). Also due to a direct channel provided by the close association between several prominent Republican politicians considered in our sample (including Bachmann, Palin and West) and the Tea Party movement, the rapid spread of the Tea Party protests in 2009 and

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<sup>34</sup> We omit the interaction between low education and security because of too few observations (two statements only).

2010 may have contributed to increase the propensity of Republicans to pander to right-wing voters by stretching the truth in their public claims.

TABLE IV ABOUT HERE

#### ***IV.C. Presidential Candidates***

We finally compare the presidential candidates in the 2008 elections (Barack Obama and John McCain) and the 2012 elections (Barack Obama and Mitt Romney), during the two electoral campaigns. In particular, we take all the claims made during the election year, up to the day before election (November 4 in 2008, and November 6 in 2012).

Table V displays average marginal effects from the regression analysis. From Column 1 we see that Obama lies 10.1% less than McCain and 17.3% less than Romney. Similar effects are found in Column 3 regarding false or half false claims. As far as the effectiveness of lying is concerned, let us observe that, since Obama eventually won both elections, our finding reassuringly suggest that lying per se is not decisive to win the electoral contest.

#### **The President**

As Pfiffner (2005) correctly points out, “Just as most people lie, so do most presidents.” The problem is that “presidents are in a special position because of the power they wield in the name of the electorate and because of the far reaching consequences of their actions. They have the responsibility to make life and death decisions that affect millions of people throughout the world.” In the case of Barack Obama, we do not find significantly different behavior regarding the false claims before and after elections, as in Column 2 of Table V – taking all the claims made only by Obama during the whole sample period – none of the year dummies is significant. Apparently the incumbent President did not alter his behavior during the campaigns. However, when looking at the broad definition of lie (to also include grey lies) we see that Obama lies more on public finance issues (by 17.8%) and in year 2012 (by 11.8%), that is the last year of his first term and a year of presidential elections.

TABLE V ABOUT HERE

## V. CONCLUSIONS

Politicians' lies are not all equal and some of them are hard to accept even for those who, in the current post-fact, hyper-partisan era of politics, agree with Arendt's (1972) pragmatic view of lying in politics, as they might break the bonds of accountability that constitute the roots of a healthy democracy. In this paper, we addressed recurring questions in political and moral philosophy, political science and political economy: do politicians misuse their tongue in their public claims, in line with popular prejudices? What are the key drivers of their willingness to depart from the truth?

Our evidence reveals that politicians do actually lie to a significant extent, with lies occurring more frequently at the beginning of the economic crisis (in 2009). We showed that politicians' propensity to tell lies is related to two broad classes of determinants: a (classic) "political consensus" motive and a series of (nonstrategic) "personal history" factors.

As to the former channel, we found that the search for political consensus leads many politicians (including prominent ones) to mainly lie by opting for partly false claims (grey lies), instead of telling blatant black lies. Next, seeking political consensus seems to induce politicians to lie more on topics on which they are likely to have an informational advantage over voters (health) and less when talking about more concrete issues affecting citizens' daily economic conditions (economy and labor). Further, our analysis revealed that the search for political gain makes party affiliation an extremely important determinant of politicians' propensity to distort the truth, with politicians belonging (for most of our sample period) to the opposition party (i.e. Republicans) lying much more than politicians belonging to the party in power (i.e. Democrats). Regarding presidential candidates, Barack Obama – who eventually won the elections in both 2008 and 2012 – departed less from the truth than his opponents during the election campaigns. As we noted in the previous section, a plausible explanation of these findings has to do with the so called "incumbency advantage": during most of our sample period, the incumbent President was a Democrat and the Republican party was the challenger. We found no effect of education, which corroborates the idea that false statements are attributable to politicians' intention to distort the truth rather than to ignorance.

As to “personal history” variables, lies are less likely when the politician comes from a swing state and from a highly educated state: this result suggests that education may foster democracy also by reducing politicians’ propensity to lie in their public claims in later life. By contrast, other state-level variables aimed at capturing social capital and religiosity turn out to play no role. Lies are less frequent also when politicians come from Southern states: this macro-area effect might be due to traditional values prevailing in the recent past in the American South, with strong family ties, high religious attendance rates and a widespread “culture of honor” (Nisbett and Cohen [1996]). Next, Democratic politicians are more likely to lie if they come from traditionally Blue states.

By assessing the extent and shedding light on the key drivers of lying in politics, this study speaks to five different, though interconnected, streams of literature. Our findings relate to the increasing body of (mainly experimental) work on lying and deception by humans (outside the political arena), as our “political consensus” results showed that the nature, extent and determinants of lying can be strongly domain-specific; further, our findings suggest that “personal history” factors may play an important role in shaping individuals’ propensity to lie also outside politics. Second, we connect to the large body of theoretical work on strategic information transmission (Crawford and Sobel [1982]; Ottaviani and Sorensen [2006]), including studies that have attempted to incorporate lying by politicians in theoretical models of electoral competition in political economy (e.g., political agency models; see on this Barro’s [1973] pioneering study). Next, we also connect to the literature on persuasive communication (Della Vigna and Gentzkow [2010]) and to the strand of empirical literature shedding light on various forms of malfeasance (or deceptive behavior) by public officials other than pure lying, such as e.g. corruption, absenteeism and shirking. Finally, focusing on lying in politics is crucial with regard to the comparative analysis of democracies and nondemocracies, as well as for the study of transitions from autocracies to young democracies, where the role of leadership is important in inducing or hindering political change (Bidner and Francois [2013]) and citizens are more willing to tolerate manipulation compared to established democracies (Brender and Drazen [2007]).

A number of relevant issues remain unresolved. First, on top of politicians’ state of origin, it will be relevant to know whether – insofar as we focus on local rather than national politicians – their propensity to lie is affected by the swing vs. nonswing nature

of the specific area *where their claims are made*. In a similar vein, it will be worth wondering whether state-specific environmental (i.e. cultural, moral and religious) variables regarding the area where the claims are made do play a role in influencing politicians' propensity to lie. Next, it will be interesting to see whether lying occurs more frequently on positive or on negative campaigning. We conjecture that these extensions would provide us with a richer and more complete picture of politicians' sources of variation in their attitude towards truth-telling. Further interesting avenues of future research are the generalizability of our findings to democratic countries other than the US as well as the analysis of politicians' lying in young democracies and nondemocracies.

As pointed out by Arendt (1972), "Facts need testimony to be remembered and trustworthy witnesses to be established in order to find a secure dwelling place in the domain of human affairs." We believe that, from a normative perspective, our results call for the importance of nonpartisan institutions and initiatives able to further increase voters' information and awareness about the honesty of their political representatives. In this regard, we claim that having stronger and stronger watchdogs – possibly fruitfully interacting with academia – will be crucial for the health of modern democracies, as it will help reducing and keeping under control the amount of serious lies that politicians will (almost inevitably) tend to make.

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#### **APPENDIX A. CLAIMS AND THEIR ASSESSMENT**

The website PolitiFact.com ranks claims on a six-level scale, providing an explanation of the assessment. Below we report excerpts of examples of claims in each scale level. The Supplementary Appendix provides full text and references of these examples.

### ***A.A. Claim Judged “True”***

Claim:

“In the month of January, Canada created more new jobs than we did.” (Mitt Romney, Candidate US President, Republican, February 11 2011 in a conference speech)

Assessment:

«True for January; for three prior months, the US created many more. [...] We found the relevant data for Canada at the website of Statistics Canada. For the month concluding in January 2011, Canada created a net 69,200 jobs. For the US numbers, we turned to the Bureau of Labor Statistics and found Romney is correct. Over the same period, the US created a net 36,000 jobs. So the US created about half as many jobs even though it is nine times larger than Canada. It's worth noting that US job growth was substantially stronger than Canadian job growth in each of the previous three months. In October, the US economy created 171,000 jobs, compared to just 3,000 for Canada. In November 2010, the US economy created 93,000 jobs, compared to 15,200 for Canada. And in December 2010, the US created 121,000 jobs, compared to 22,000 for Canada. But on a per capita basis, in recent months US job creation exceeded Canada's only in October. [...]»

### ***A.B. Claim Judged “Mostly True”***

Claim:

“The 2006 Massachusetts health care law has added (only) about 1 percent to our state budget.” (Deval Patrick, Governor of Massachusetts, Democrat, on February 27 2011 in a television interview)

Assessment:

«The feds kicked in money, though. [...] A report published in 2009 found that the state's share of health care spending increased by \$353 million in fiscal year 2010. The state's entire budget is roughly \$30 billion, so that comes out to about 1 percent, said Michael Widmer, the group's president. [...] The [report] arrived at its number by adding health care spending increases for expanding coverage. But it also subtracted money the state would have spent under the old system on care for the uninsured and the state's old Medicaid program. [...] There were additional costs for the health care plan outside of the state budget, so Patrick was right as far as the state budget goes. But

because it's only one piece of a picture that includes increased federal spending, we rate his statement Mostly True.»

### ***A.C. Claim Judged “Half True”***

Claim:

“If today's economy was rebounding at the rate of the “Reagan recovery,” it would have created the equivalent of 25 million new jobs and raised federal revenue by \$800 billion a year.” (Newt Gingrich, Candidate for the Republican party presidential nomination, Republican, on June 13 2011 in a Republican presidential debate)

Assessment:

«Right on jobs, wrong on revenues. [...] We'll address Gingrich's claim in two parts, with the one about jobs first. Job creation statistics come from the Bureau of Labor Statistics, a federal agency. [...] Since Gingrich was talking about a “recovery,” we figured it would be fair to start the clock at the low point of the jobs picture. We've chosen January 1983 as what we think is a reasonable start date, and then picked January 1989 as the closing date, since that's when Reagan left office. [...] Using the BLS data, we found that the number of employed Americans grew from almost 89 million in January 1983, the start of the “Reagan recovery,” to more than 107 million in January 1989, an increase of 18.2 million or about 20 percent. [...] We adjusted the 18.2 million increase in jobs to account for the fact that today's labor force is 31 percent bigger and came up with 24 million jobs – quite close to the 25 million Gingrich cited in the debate. [...] What about the money figure? For this, we looked at the historical tables for federal revenue produced by the Office of Management and Budget. [...] Between fiscal year 1983 and fiscal year 1989, federal revenue climbed from about \$600.6 billion to \$991.1 billion. That's an increase of \$390.5 billion over the period. [...] Adjusting for the increase in revenues since the mid-1980s, it works out to slightly less than \$1.1 trillion. [...] So if you divide the \$1.1 trillion number by the six years it covered, you get roughly \$178 billion per year – well below the \$800 billion figure Gingrich cited. So on tax revenues, the actual amount is far lower than what Gingrich claimed. Where does this leave us? Gingrich got very close on the jobs number, but he was way off on the revenue figure. We'll call it Half True.»

***A.D. Claim Judged “Mostly False”***

Claim:

“Under Barack Obama the last two years, the number of federal limousines for bureaucrats has increased 73 percent.” (Michelle Bachmann, Member of Congress, Republican, on June 26 2011 in a television conference)

Assessment:

«Claim is based on squishy report, according to the folks who wrote it. [...] The claim is based on a May 31, 2011, story from iWatchNews.org, a project of the Center for Public Integrity, which ran under the headline, “Limousine liberals? Number of government-owned limos has soared under Obama.” [...] The statistic is based on annual fleet reports provided by the U.S. General Services Administration. According to the Fleet Report for Fiscal Year 2010 (Table 2-5 and 2-5T), the number of federal limousines by year went from 318 in 2006; to 217 in 2007; to 238 in 2008; to 349 in 2009; and to 412 in 2010. So the data suggests there was a 73 percent increase between 2008 and 2010. [...] For starters, the GSA itself is not standing behind the numbers. Because of a loose definition of “limousines,” GSA spokeswoman Sara Merriam told iWatch News that GSA “cannot say that its report accurately reflects the number of limousines.” [...] The iWatch News story also notes that much of the increase in the fleet of limousines was in the State Department. [...] But Bachmann's claim that “under Barack Obama the last two years the number of federal limousines for bureaucrats has increased 73 percent,” is based on squishy figures from the GSA (according to the GSA itself). And it's also impossible to tell from the numbers exactly how many of the new “limousines” were ordered by the Obama administration, and how many were ordered by his predecessor. Given those qualifiers, we rate it Barely True.»

***A.E. Claim Judged “False”***

Claim:

“General Motors is the largest corporation in the world again.” (Joe Biden, US Vice President, Democrat, April 1 2012 in a television interview)

Assessment:

«Not No. 1, or even No. 10. [...] *Fortune* and *Forbes* both annually rank the world's largest companies, respectively by total revenues and by sales, profit, assets and market

values. GM didn't make the top of either list last year. Not even among automakers. [...] Toyota and Volkswagen both beat out GM on the *Fortune* list. They were No. 8 and No. 13; GM was No. 20. [...] On the broader-based *Forbes* list, Volkswagen weighed in at No. 24. Daimler (think Mercedes-Benz) hit No. 43. Ford and Toyota ranked No. 54 and No. 55. General Motors trailed at No. 61. [...]

#### ***A.F. Claim Judged "Pants on Fire"***

Claim:

"If you actually took the number of Muslims Americans, we'd be one of the largest Muslim countries in the world." (Barack Obama, US President, Democrat, June 1 2009 in a television interview)

Assessment:

«America is one of the largest Muslim countries? Not so much. [...] [Using] numbers from the *CIA Online World Factbook*, [...] Muslims in the United States make up about 0.6 percent of the population. That's around 1.8 million. Using the CIA's data, we made a list of the 60 countries with the most Muslim residents. Coming in first is Indonesia [206 million Indonesians are Muslim]. [...] [The] United States ranks 58th. [...]

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TABLE I.  
Summary Statistics (6,892 Claims)

<b>Variable</b>	<b>Mean</b>	<b>Std. dev.</b>	<b>Minimum</b>	<b>Maximum</b>
<i>Claim</i>				
False (completely); black lies	0.275	0.447	0	1
False (mostly or more)	0.428	0.495	0	1
False (half or more); black and grey lies	0.645	0.479	0	1
<i>Politician</i>				
Age	55.937	10.006	22	89
Female	0.178	0.355	0	1
Republican	0.573	0.495	0	1
Low education (No college degree)	0.023	0.151	0	1
<i>Topic</i>				
Economy	0.153	0.360	0	1
Health	0.115	0.319	0	1
Labor	0.099	0.299	0	1
Policies	0.175	0.380	0	1
Public finance	0.187	0.390	0	1
Security	0.094	0.292	0	1
Taxes	0.073	0.261	0	1
Values	0.104	0.305	0	1
<i>State</i>				
Swing state	0.454	0.498	0	1
Blue state	0.275	0.447	0	1
Red state	0.271	0.445	0	1
Real per capita disposable income (k USD)	23.551	2.497	16.547	31.623
College graduate rate	0.203	0.031	0.123	0.333
Census response rate	0.668	0.057	0.560	0.770
News exposure	0.478	0.033	0.329	0.572
Perceived honesty	0.633	0.034	0.502	0.719
Religion importance	0.682	0.050	0.519	0.818
<i>Geographical Area</i>				
North-East	0.201	0.401	0	1
Mid-West	0.319	0.466	0	1
West	0.089	0.284	0	1
South	0.391	0.488	0	1
<i>Year</i>				
Year 2007-2008	0.080	0.272	0	1
Year 2009	0.044	0.204	0	1
Year 2010	0.221	0.415	0	1
Year 2011	0.320	0.466	0	1
Year 2012	0.335	0.472	0	1

TABLE II.  
False Claims by Prominent Politicians

	Black Lies		Black and Grey Lies	
	(1)	(2)	(3)	(4)
<i>Politician</i>				
Age /100	9.393 (14.982)	9.734 (14.884)	-15.444 (14.487)	-12.725 (14.048)
Female	-1.059 (3.764)	-0.720 (3.767)	3.126 (3.898)	2.547 (4.018)
Republican	12.774*** (3.000)	12.021*** (2.972)	13.653*** (2.974)	12.383*** (2.976)
Low education	-1.149 (11.363)	-1.990 (12.305)	14.379 (10.184)	13.126 (10.325)
<i>State</i>				
Swing state		-10.835*** (3.925)		-16.046*** (4.959)
Ln(per capita disp. income)		32.301 (30.965)		42.469 (35.069)
College graduate rate		-144.674 (99.368)		-227.445** (95.796)
Census response rate		53.510 (57.805)		-53.154 (54.225)
News exposure		-55.050 (67.364)		8.967 (84.402)
Perceived honesty		-57.286 (73.165)		71.045 (79.965)
Religion importance		-27.973 (71.973)		-28.166 (76.669)
<i>Geographical Area (baseline: North-East)</i>				
Mid-West	-2.034 (4.295)	-2.313 (9.046)	-6.957 (4.746)	-6.408 (7.510)
West	-11.899** (5.506)	-7.426 (8.806)	-10.291* (5.728)	-12.119 (9.967)
South	-9.677** (3.999)	-4.928 (5.793)	-13.147*** (4.432)	-11.468** (5.547)
No. claims (prominence)	-0.054** (0.024)	-0.046* (0.026)	-0.019 (0.016)	-0.010 (0.018)
Constant	-23.295*** (8.870)	-270.845 (341.420)	23.368*** (8.825)	-347.081 (377.317)
N. Observations	364	364	364	364
Log-pseudolikelihood	-169.65	-169.67	-179.27	-175.43

Notes. The table reports average marginal effects ( $\times 100$ ) from a fractional response logit model estimated with Bernoulli quasi-maximum likelihood and standard errors robust to heteroskedasticity. The dependent variable is the fraction of false claims and 0 otherwise (Black lies, Cols. 1-2), or the fraction of false, mostly false and half true claims and 0 otherwise (Black and grey lies, Cols. 3-4). The sample is made of politicians with more than 3 statements. Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

TABLE III.  
False Claims by All Politicians

	Black Lies			Black and Grey Lies		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Politician</i>						
Age /100	0.101 (0.136)	0.138 (0.132)	0.127 (0.131)	-0.109 (0.127)	-0.081 (0.126)	-0.088 (0.125)
Female	-0.024 (0.037)	-0.019 (0.035)	-0.022 (0.035)	0.048 (0.035)	0.052 (0.034)	0.049 (0.034)
Republican	0.159*** (0.031)	0.153*** (0.030)	0.153*** (0.030)	0.117*** (0.027)	0.113*** (0.027)	0.111*** (0.027)
Low education	-0.089 (0.107)	-0.089 (0.103)	-0.088 (0.102)	0.066 (0.103)	0.045 (0.100)	0.053 (0.099)
<i>Topic (baseline: Policies)</i>						
Economy			-0.044** (0.020)			0.041** (0.020)
Health			0.051** (0.021)			0.139*** (0.024)
Labor			-0.063*** (0.023)			0.044* (0.024)
Public finance			-0.032 (0.019)			0.028 (0.020)
Security			-0.009 (0.023)			0.010 (0.023)
Taxes			-0.020 (0.025)			0.027 (0.025)
Values			-0.014 (0.022)			0.012 (0.023)
<i>State</i>						
Swing state		-0.119** (0.049)	-0.115** (0.048)		-0.086* (0.046)	-0.086* (0.045)
Ln(per capita disp. income)		0.491 (0.376)	0.452 (0.374)		-0.302 (0.356)	-0.283 (0.354)
College graduate rate		-2.865*** (1.041)	-2.691*** (1.035)		-0.690 (0.988)	-0.755 (0.983)
Census response rate		0.782 (0.556)	0.851 (0.552)		0.148 (0.525)	0.095 (0.522)
News exposure		-1.041 (0.718)	-1.066 (0.712)		-0.948 (0.671)	-0.970 (0.666)
Perceived honesty		-0.740 (0.735)	-0.739 (0.729)		0.364 (0.683)	0.416 (0.678)
Religion importance		-0.454 (0.754)	-0.475 (0.748)		-0.261 (0.694)	-0.261 (0.690)
<i>Geographical Area (baseline: North-East)</i>						
Mid-West	0.044 (0.045)	0.011 (0.088)	0.012 (0.087)	-0.072* (0.043)	-0.110 (0.081)	-0.103 (0.081)
West	-0.082 (0.056)	-0.007 (0.102)	-0.006 (0.101)	-0.127** (0.051)	-0.150 (0.093)	-0.140 (0.093)
South	-0.066* (0.040)	-0.014 (0.057)	-0.013 (0.057)	-0.095** (0.037)	-0.105** (0.053)	-0.095* (0.053)
<i>Year (baseline: 2007-2008)</i>						
Year 2009	0.093** (0.041)	0.093** (0.040)	0.085** (0.040)	0.139*** (0.039)	0.140*** (0.039)	0.102*** (0.039)
Year 2010	0.027 (0.034)	0.021 (0.034)	0.026 (0.033)	0.127*** (0.031)	0.122*** (0.031)	0.112*** (0.031)
Year 2011	-0.013 (0.034)	-0.017 (0.033)	-0.007 (0.033)	0.075** (0.030)	0.071** (0.030)	0.061** (0.030)
Year 2012	-0.010 (0.034)	-0.013 (0.033)	-0.007 (0.033)	0.114*** (0.030)	0.111*** (0.029)	0.101*** (0.029)
N. Observations	6,892	6,892	6,892	6,892	6,892	6,892
N. Politicians	948	948	948	948	948	948
Rho	0.497	0.483	0.483	0.393	0.381	0.381
Log-likelihood	-3,740.58	-3,731.28	-3,716.37	-4,204.29	-4,192.91	-4,172.00

Notes. The table reports average marginal effects from random-effect logit regressions where the dependent variable is equal to 1 if the claim is false and 0 otherwise (Black lies, Cols. 1-3) or false, mostly false or half true and 0 otherwise (Black and grey lies, Cols. 4-6). Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

TABLE IV.  
False Claims by Party Affiliation

Sample	Black Lies			Black and Grey Lies		
	All (1)	Dem. (2)	Rep. (3)	All (4)	Dem. (5)	Rep. (6)
<i>Politician</i>						
Age /100	0.126 (0.132)	0.142 (0.148)	0.191 (0.204)	-0.093 (0.126)	0.041 (0.206)	-0.180 (0.157)
Female	-0.022 (0.035)	-0.069* (0.039)	0.045 (0.057)	0.050 (0.034)	-0.010 (0.051)	0.125*** (0.047)
Republican	0.153*** (0.030)			0.111*** (0.027)		
<i>Topic (baseline: Policies)</i>						
Economy	-0.040* (0.020)	-0.034 (0.026)	-0.051* (0.029)	0.044** (0.021)	-0.017 (0.032)	0.086*** (0.027)
Health	0.054** (0.021)	0.045* (0.027)	0.053* (0.030)	0.141*** (0.024)	0.092** (0.036)	0.186*** (0.033)
Labor	-0.068*** (0.024)	-0.005 (0.030)	-0.104*** (0.033)	0.051** (0.024)	0.042 (0.039)	0.048 (0.030)
Public finance	-0.033* (0.020)	0.041 (0.025)	-0.080*** (0.027)	0.031 (0.020)	0.075** (0.033)	0.007 (0.025)
Security	-0.008 (0.024)	-0.026 (0.030)	0.009 (0.034)	0.013 (0.023)	0.037 (0.036)	-0.013 (0.031)
Taxes	-0.016 (0.025)	-0.013 (0.032)	-0.024 (0.035)	0.030 (0.025)	0.031 (0.040)	0.030 (0.033)
Values	-0.010 (0.023)	0.019 (0.028)	-0.034 (0.032)	0.014 (0.023)	0.035 (0.037)	0.004 (0.029)
Economy × Low educ.	-0.436* (0.229)			0.012 (0.175)		
Health × Low educ.	-0.129 (0.149)			0.004 (0.189)		
Labor × Low educ.	0.028 (0.128)			-0.106 (0.137)		
Policies × Low educ.	-0.038 (0.122)			0.144 (0.136)		
Public finance × Low educ.	-0.010 (0.120)			-0.038 (0.126)		
Taxes × Low educ.	-0.154 (0.162)			-0.043 (0.173)		
Values × Low educ.	-0.276 (0.180)			0.017 (0.181)		
<i>State</i>						
Swing state	-0.116** (0.048)			-0.087* (0.046)		
Blue state		0.173*** (0.064)	0.125 (0.081)		0.215** (0.085)	0.057 (0.062)
Red state		0.049 (0.075)	-0.007 (0.091)		0.119 (0.102)	0.010 (0.069)
Ln(per capita disp. income)	0.459 (0.375)	0.211 (0.442)	0.225 (0.572)	-0.280 (0.355)	0.042 (0.599)	-0.750* (0.445)
College graduate rate	-2.697*** (1.038)	-1.462 (1.356)	-0.913 (1.760)	-0.768 (0.986)	-1.246 (1.840)	0.685 (1.341)
Census response rate	0.851 (0.554)	0.365 (0.659)	0.414 (0.899)	0.096 (0.524)	0.147 (0.910)	-0.502 (0.664)
News exposure	-1.056 (0.714)	-0.553 (0.832)	-0.109 (1.159)	-0.975 (0.668)	-1.212 (1.137)	0.160 (0.891)
Perceived honesty	-0.741 (0.732)	0.059 (0.939)	-2.119** (1.028)	0.423 (0.680)	1.733 (1.257)	-1.085 (0.785)
Religion importance	-0.466 (0.751)	-0.042 (0.912)	-0.886 (1.128)	-0.254 (0.692)	-0.098 (1.229)	-0.939 (0.838)
<i>Geographical Area (baseline: North-East)</i>						
Mid-West	0.013 (0.088)	0.018 (0.093)	0.130 (0.152)	-0.104 (0.081)	-0.124 (0.125)	0.019 (0.114)
West	-0.005 (0.102)	-0.088 (0.119)	0.038 (0.157)	-0.141 (0.093)	-0.237 (0.154)	-0.118 (0.119)
South	-0.011 (0.057)	0.016 (0.071)	0.047 (0.094)	-0.096* (0.053)	-0.034 (0.095)	-0.102 (0.070)

TABLE IV.  
(Continued)

Sample	Black Lies			Black and Grey Lies		
	All (1)	Dem. (2)	Rep. (3)	All (4)	Dem. (5)	Rep. (6)
<i>Year (baseline: 2007-2008)</i>						
Year 2009	0.085** (0.040)	0.027 (0.041)	0.176** (0.068)	0.101** (0.039)	0.117** (0.053)	0.127** (0.063)
Year 2010	0.026 (0.033)	-0.060 (0.037)	0.128** (0.056)	0.113*** (0.031)	0.090** (0.042)	0.169*** (0.050)
Year 2011	-0.008 (0.033)	-0.078** (0.036)	0.078 (0.056)	0.061** (0.030)	-0.022 (0.041)	0.154*** (0.049)
Year 2012	-0.005 (0.033)	-0.021 (0.033)	0.036 (0.057)	0.101*** (0.029)	0.093** (0.039)	0.153*** (0.049)
N. Observations	6,892	2,941	3,951	6,892	2,941	3,951
N. Politicians	948	454	494	948	454	494
Rho	0.486	0.494	0.457	0.382	0.437	0.289
Log-likelihood	-3,711.27	-1,367.67	-2,320.75	-4,170.56	-1,837.79	-2,299.02

Notes. The table reports average marginal effects from random-effect logit regressions where the dependent variable is equal to 1 if the claim is false and 0 otherwise (Black lies, Cols. 1-3) or false, mostly false or half true and 0 otherwise (Black and grey lies, Cols. 4-6). The analysis is based on the whole sample (Cols. 1, 4), the sample of Democratic politicians (Cols. 2, 5), or Republican politicians (Cols. 3, 6). Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

TABLE V.  
False Claims in Presidential Election Campaigns

Sample	Black Lies		Black and Grey Lies	
	Candidates (1)	Obama (2)	Candidates (3)	Obama (4)
<i>Candidate</i>				
McCain	0.101** (0.047)		0.162*** (0.054)	
Romney	0.173*** (0.042)		0.143*** (0.049)	
<i>Topic (baseline: Policies)</i>				
Economy	-0.072 (0.059)	0.015 (0.058)	0.130** (0.066)	0.054 (0.075)
Health	0.081 (0.058)	0.086 (0.056)	0.175** (0.075)	0.155* (0.080)
Labor	-0.125 (0.079)	-0.041 (0.087)	0.187** (0.088)	0.095 (0.102)
Public finance	0.031 (0.060)	0.042 (0.061)	0.077 (0.073)	0.178** (0.083)
Security	0.015 (0.054)	-0.041 (0.067)	0.049 (0.064)	0.042 (0.082)
Taxes	-0.041 (0.066)	-0.084 (0.078)	0.071 (0.072)	-0.035 (0.085)
Values	0.026 (0.061)	0.104* (0.059)	-0.029 (0.071)	0.039 (0.087)
<i>Year</i>				
Year 2009		0.042 (0.047)		0.110 (0.074)
Year 2010		-0.076 (0.057)		0.036 (0.070)
Year 2011		-0.017 (0.048)		-0.035 (0.064)
Year 2012	-0.048 (0.049)	-0.010 (0.040)	0.104** (0.049)	0.118** (0.055)
N. Observations	614	567	614	567
N. Politicians	3	1	3	1
Rho	-	-	-	-
Log-likelihood	-292.21	-227.51	-381.20	-377.62

Notes. The table reports average marginal effects from random-effect logit regressions where the dependent variable is equal to 1 if the claim is false, and 0 otherwise (Black lies, Cols. 1, 2) or false, mostly false or half true and 0 otherwise (Black and grey lies, Cols. 3-4). The sample is made of claims from US presidential candidates (Cols. 1, 3), during the 2008 and 2012 campaigns, and claims from Obama over the 2007-2012 period (Cols. 2, 4). Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Figure I.  
Claim Distribution over Topics

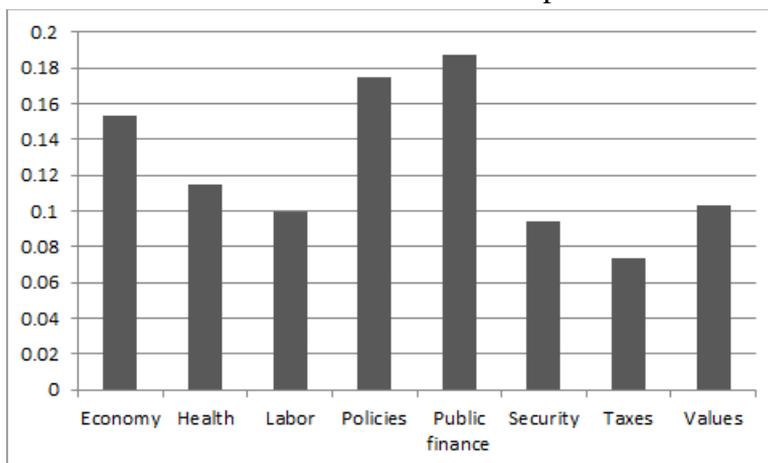


FIGURE II.  
Frequency of False Claims by Topic

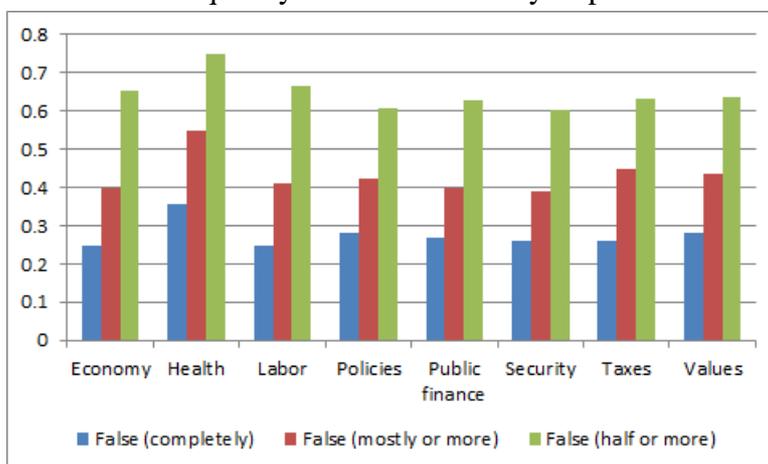
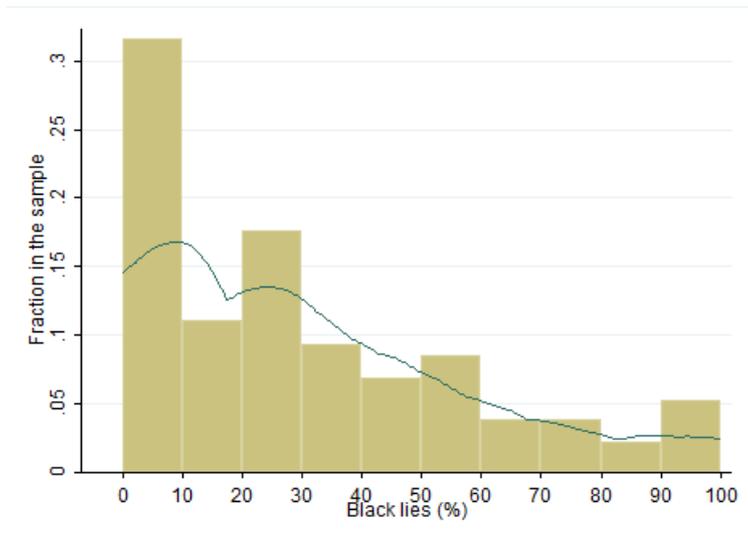


FIGURE III.  
 Frequency of False Claims by Prominent Politicians  
 a. Black Lies



b. Black and Grey Lies

