Primary Elections and Candidate-Centered Campaigns

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Abstract

Do primary elections cause candidate-centered campaigning? While a significant body of research explores the possibility that the introduction of primary elections is behind US politics' uniquely candidate-centered campaigns, empirical evidence for this claim is lacking. In this paper, we analyze a novel dataset of political advertisements in local daily newspapers between 1880 and 1930. We exploit the panel structure of this data to demonstrate that primary elections substantially increased candidate-centered campaigning for statewide offices, but did not have the same effect for US House races. We posit a number of reasons for these divergent findings. Using original data and credible empirical methods, this paper provides the first well-identified empirical evidence that the direct primary contributes to candidate-centered campaigning in the United States.

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Introduction

In comparison to those in most other advanced democracies, American parties have always been uniquely absent electoral actors; nevertheless, their degree of involvement in nominees quests' for office has varied dramatically over time (**??**). A substantial literature considers the rise of the "individualized campaign" in the early 1960s, during which time the incumbency advantage appeared (**?**), marginal districts "vanished" (**?**), and party loyalty in the electorate began a sharp decline (**?**). Most of these trends have since reversed, and by some measures American politics has recovered from this "crisis of our time" (**?**, 193). However, a definitive answer for *why* American politics shifted so dramatically away from parties and toward individual campaigns in the latter half of the twentieth century remains elusive. While party influence, relative to candidates, may fluctuate in any democracy, the dramatic swing of American politics from "the most partisan society the world has ever seen" (**?**, 1) in the mid-to-late 1800s to a state in which "voters simply decided that they had no need for party anymore" by 1960 (**?**), and now in some regards back again, is decidedly unique. What institutional features of American politics permit such fluctuation?

We offer a partial answer to this question: the widespread use of primary elections. While the substantial literature on primary elections does not specifically address changes in electoral campaigning, many commenters on candidate-centered politics have suggested that the direct primary may be to blame. Scholars have noted that primary elections "have largely deprived parties of their most important source of influence over elected officials" (**?**, 24) and thereby "opened the road for disruptive forces that gradually fractionalized the party organization" (**?**, 342). If primaries weaken party organizations' capacity to wage campaigns, candidates will be incentivized to pick up the slack; more directly, the direct primary privileges candidates with strong personal attributes in securing nominations, and thereby undercuts the political party-candidate exchange of resources-for-loyalty.

Drawing on a novel dataset of political advertisements run in local daily newspapers between 1880 and 1930, we directly query the relationship between the introduction of the direct primary and candidate-centered campaigning. We provide evidence that the introduction of the direct primary markedly increased the rate of individual political advertising, suggesting that the primary in some sense "causes" an individual-based, rather than party-based, style of campaigning. While we do not claim that the widespread onset of candidate-centered campaigning in the latter half of the twentieth century is directly and entirely caused by the use of the direct primary, our results suggest that the decentralized nomination processes pervasive in US party politics are at least in some sense a precondition for the onset of a candidate-centered politics.

We begin by providing background information on candidate-centered campaigning and the direct primary in U.S. politics, emphasizing how these largely separate literatures interact. We then describe our expectations for the relationship between primary elections and candidate-centered campaigning, that direct primaries ought to increase individual advertising. We describe our data, centered around our measure of advertising, derived from counts of advertisements in local daily newspapers in the weeks surrounding major elections. We lay out our empirical strategy, which exploits the panel structure of the data and within-state changes in primary election use to generate causal estimates of the impact of primary adoption on rates of advertising. We then present our results, which are largely confirmatory of our hypothesis; we find a substantial bump in advertising for statewide offices following primary adoption, though no such bump for the U.S. House. The results are robust to a wide variety of alternative specifications; depending on the specification, the results suggest an effect size on the order of seven to thirteen percent increase for statewide offices. We then discuss possible reasons for our non-finding for the U.S. House, before concluding.

Background

Our primary goal in this paper is to provide an institutional explanation for a puzzle in American politics: how exactly it is that campaigns in the United States can be so disproportionately candidate-centered, in both comparative and temporal perspective. We suggest that the widespread use of democratic nominating processes, via direct primary elections, is one such explanation. In this section we provide background and discuss previous work on both candidate-centered campaigning and the direct primary.

Candidate-Centered Campaigning in the United States

Party strength in the United States has been decidedly non-constant, and even non-monotonic, over time (**??**). In the early years of the United States, government was a decidedly elite affair. While the American political elite were largely anti-party (**?**), in the mid-to-late nineteenth century America grew to be "one the most partisan societies - arguably the most partisan society - there has ever been" (**?**, 1). However, party strength ebbed once again at the beginning of the twentieth century. Dissatisfaction with "Gilded Age" pro-industry politics, an increasingly nonpartisan media, and internal divisions within the Republican party led to increasing public discontent with the major political parties. Besides a brief uptick during the Great Depression, partisan identification among the public and the strength of political party organizations continued to decline until around 1980, when it again began to increase again (**?**).

Positive political scientists have been uniquely interested in the onset of "candidate-centered campaigns" in the 1950s. This is in part a function of historical timing: the onset of positive political science neatly coincides with the onset of this phenomenon. Accordingly, considerable ink has been spilled in demonstrating the existence of a "a shift from a more party-centered to a far more candidate-centered electoral era in the 1960s" (**?**, 266). **?**, **?**, and **?** all recount the high variance of American political party strength after 1896 as electoral realignments swept the country. The American Political

Science Association's Committee's call for a "more responsible two-party system" made it clear that political scientists viewed the parties of the 1950s as weak and in crisis (**?**).

Central to this line of inquiry were two observations: first, that voters came to see parties "as increasingly irrelevant in their decision-making" (**?**, 269) as one party came to dominate government. From the 1830's to the 1890's, the political parties were very close in strength, resulting in a need to effectively mobilize as many voters as possible to win elections (**?**, 21). Scholars such as (**?**) have attributed recent increases in partisanship to the renewed competitiveness between the major parties. In contrast, the period from 1928 to 1994, which roughly coincides with, or at least includes, the period when candidate-centered campaigning became prominent, was one of Democratic dominance. Related to this Democratic dominance was an ascendant form of legislative organization that increasingly privileged seniority and committee assignments rather than party organization (**?**). As a result of such organization, voters were incentivized to consider the candidate himself, and what he could bring to the district through the prerogatives of seniority, rather than party.

The candidate-centered electoral environment was also encouraged by institutional and technological changes. For example, the spread of radio (and later television) eliminated the parties' control over disseminating political information (**?**, 19), the franking privilege enhanced connectedness between legislators and constituents (**?**, 40), and the increasing bureaucratization of government allowed legislators to increasingly function as service providers rather than lawmakers (**?**). While institutional features gave voters incentive to vote for candidates, rather than parties, changing technologies and government structures made it possible for political figures to cater to this demand in previously impossible ways.

These changes gave office-seekers the power to accomplish goals that previously required high levels of centralization and coordination. In the partisan period before the Progressive Era, parties were able to mobilize turnout through the use of patronage

(**?**), control of nominations (**?**), and control of the ballot (**??**). Urban machines and party control of the ballot system kept turnout high and parties in control. As **?** explains, in many states with important urban areas such as New York, New Jersey, and Pennsylvania, political parties distributed patronage jobs and "exercised considerable influence in the selection of candidates and other organization affairs" (32). The states that developed the most sophisticated party organizations, in the Middle Atlantic, were "'operated by shrewd professionals' who dealt heavily in patronage" (206).

The Direct Primary

With the onset of the Progressive era, these "traditional party organizations" came under attack. As the memory of the Civil War began to fade, internal divisions within the Republican party grew. The progressive movement in the North began to call for reforms, including the Australian ballot and direct primary (**?**, 26). Additionally, the Democratic populist movement in the South and the West began to challenge the established party order (**?**, 26). As a result, the Australian ballot was first adopted in Massachusetts in 1888, and in eight years it had been adopted by ninety percent of the states (**?**, 23). This change, though broadly favored by the parties due to a reduction in local ballot roguery as well as costs, increased ticket splitting (**?**), a phenomenon associated with weak party attachments. Additionally, civil service reform took hold at the national level with the passage of the Pendleton Act in 1883, and gradually spread throughout the states during the first two-thirds of the twentieth century, electorally harming entrenched major parties as it did (**?**). Fiorina notes that as as the social welfare functions of the parties were passed on to the federal government, one of the key interactions between the political parties and the public was lost (**?**). Party loyalty, previously built on such clientelistic or patronage-based relationships, could now only be fostered through programmatic coherence; this coherence, as the American Political Science association famously noted (**?**), was sorely lacking in the mid-twentieth century.

Unable to see "a dime's worth of difference" between the parties, many voters simply abandoned them.

Finally, the widespread adoption of the direct primary stripped parties of one of their three primary functions, nominating candidates for office (**?**). Without the carrot (and stick) of renomination, party organizations were less effective at generating party loyalty in the legislature (**?**). A number of scholars have noted the negative effect on party organization coherence that the direct primary engendered. Campaigns could no longer be comprised entirely of appeals to party leaders in "smoke-filled rooms." Instead, it was necessary that candidates appeal not only to the voters, but a more diverse set of voters than ever before. This effect is most acute in the South; because of the one-party system in the South (**?**), voters effectively went from having no representation to representation within a big-tent Democratic party. Though recent scholarship suggests that parties were actually supportive of primary's initial adoption (**?**), they realized only too late their negative impact on party organizational strength. A number of states did or attempted to repeal their primaries, but public pressure ultimately resulted in their adoption in all states.

The adoption of the direct primary fundamentally altered the relationship of candidates to their party organizations; specifically, parties' principal tool to enforce party discipline, the promise and threat of nomination and renomination for public office, was stripped away. As (**?**) writes,

> Primary elections have largely deprived parties of their most important source of influence over elected officials. Parties no longer control access to the ballot and, therefore, to political office. They cannot determine who runs under the party's label and so cannot control what the label represents. National parties have never had much of a say in nominations...party leaders do not threaten primary challenges to keep their current legislators in line, for fear of losing seats to the opposition following divisive intra-party

battles." (24)

In effect, therefore, primaries replace the principal to which the candidate is agent. While in the pre-primary era the party would determine whether or not a candidate got re-nominated, a necessary condition for reelection, this function lies with voters after the adoption of the primary. This is related to the creation of non-programmatic political parties in the mid-twentieth century. With the primary, intra-party diversity is necessarily permitted because candidates have incentives to adopt the interests of their districts (**??**), and parties lack strong tools to prevent this behavior. This may even be related to the twentieth century dominance of the Democratic Party; as many scholars have written, the "New Deal Coalition" was a diverse big tent party, which may not have survived as robustly as it did in the absence of the intra-party flexibility afforded by the direct primary. Primaries thereby reduce the salience of party, and subsequently increase the salience of the individual candidate, in electoral politics, and therefore increase incentives for individuals to conduct candidate-centered campaigns.

Theory: Primaries and Personal Campaigns

Our central claim is that the introduction of the direct primary ought to increase levels of candidate-centered campaigning; as we highlight above, this claim is not new. In this section, we develop two possible pathways through which this main effect might operate. First, we highlight that the adoption of the direct primary weakens political parties as organizations: in so doing, it saps parties of their ability to field a coherent slate of candidates and, subsequently, decreases the efficacy and ability of parties to campaign effectively on these candidates' behalf. Second, we highlight that the mode of nomination privileges those candidates whose skill sets are conducive to that form of nomination; the adoption of the direct primary shifts this skill set from one based on party loyalty and intra-party standing to one based on public skills such as campaigning. Though this reduction of the effect of primaries on candidate-centered

campaigning to two pathways, pictured in Figure **??** is clearly an oversimplification, we feel that it captures the main intuitions behind this hypothesized causal relationship.

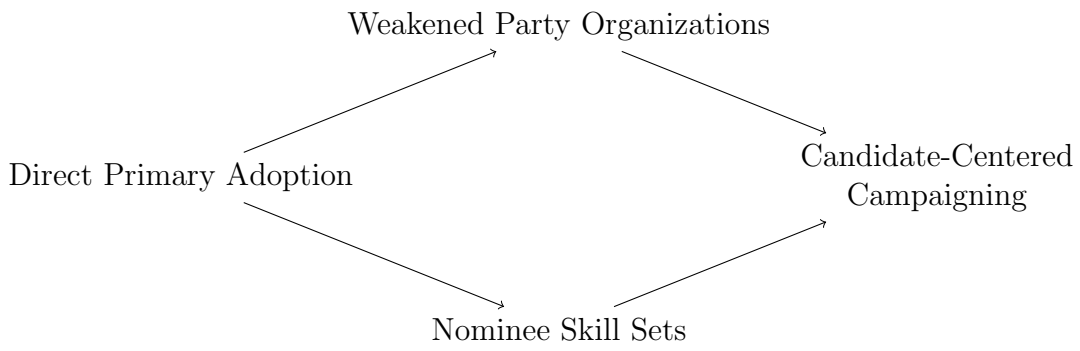

Figure 1: Theory Outline

In this section we detail the logic underlying our principal claim: that the introduction of the direct primary ought to increase levels of candidate-centered campaigning. Two simple observations underly this claim: candidate-centered campaigning and partisan strength are, in at least some respects, opposite sides of the same coin. When party organizations are strong, they have the capability to coordinate electoral campaigns up and down a party ticket; moreover, their nominees, whether through selection or personal incentives, will desire for them to do so. Strong parties serve as a valuable cue to voters, leading candidates to want the party label (**?**). When party organizations are weak, however, candidates are able and willing to operate independent campaigns that emphasize candidate-specific, rather than party-specific, attributes. The second observation is that the introduction of the direct primary weakens party organizations. This is a regular observation of those who study primaries, and is empirically supported (**?**). When combined, these observations readily lead to the conclusion that the introduction of primary elections ought to increase candidate-centered campaigns and, hence, candidate-specific advertising. Throughout this discussion we rely on **?**'s characterization of a "candidate-centered campaign," which they describe as focusing on a specific candidate's personality traits or issue positions, in lieu of a focus on appeals to partisan loyalty and reliance on party organization (17-18).

A second way in which primaries might engender candidate-centered campaigning is via a "selection effect" regarding the candidates who ultimately receive nominations. Primaries require candidates to conduct a public "campaign" in order to secure the nomination. This opportunity therefore affords "practice" in conducting an individual, candidate-focused campaign as well as privileging those with the skills needed for such campaigns in securing nominations. Therefore, in addition to more generally weakening parties and increasing incentives and capacity for candidate-specific appeals for both candidates and voters, primaries also privilege and engender a set of skills that is conducive to individual campaigns.

Data: Newspaper Ads, 1880-1930

"Candidate-centered campaigning" is, of course, a multifaceted phenomenon that can plausibly be measured any number of ways. It has as characteristic features unmoderated communication between politicians and constituents and campaigns based on candidate attributes, rather than party attributes. In our period of study, the primary means of news-gathering and information dissemination was the print media, specifically newspapers. This makes newspaper advertisements a relatively comprehensive measure of physical campaign materials. We therefore take as our measure of candidate-centered campaigning the density of candidate-specific advertisements in newspapers in the period immediately preceding elections. Focusing on candidate-specific advertisements allows us to determine the effect that the introduction of the direct primary had on the rate at which candidates felt the need to not rely on party label or party-coordinated campaigning, but rather to reach out directly to voters via popular media.

The dataset was constructed by parsing through twenty-five local newspapers in twenty-two states in the period of 1880-1930. Most of these newspapers were accessed online via Newspapers.com; others, such as the Denver Post, were available on mi-

crofilm in the Harvard Library. The newspapers were chosen based on availability, geographic diversity, and to ensure at least some modicum of electoral competition in the newspapers' states. Coding was done by five human coders coordinating to ensure comparability of efforts. The sample of newspapers, including the range of years and total number of years for which they were available are given in Table **??**.

For each major election in a newspaper's jurisdiction, we coded ads for the week preceding the election. Starting on the Tuesday preceding and running through the Tuesday of the general election, we looked through each page and counted the total number of political advertisements. Binary variables were created indicating the office of the candidate, such as whether the advertisement was for a statewide office or for the House of Representatives, and the date of the advertisement was noted. After generating a list of each advertisement that appeared on each day, the data was collapsed to reveal the number of advertisements per day for each week prior to the election. We use advertisements per day (of newspaper printing) to allow for the fact that different newspapers print different numbers of days per week; while we focus on daily newspapers, many did not print on at least one or day of the week. This process gives us our outcome variable at the newspaper-year level.

We focus on two offices. First, we examine statewide offices, such as governor, attorney general, secretary of state, and so on. The second office we examine is the U.S. House. Statewide office and U.S. House races offer sufficient contrast, with one set of executive offices and one set of legislative offices, while each having sufficient supplementary information about competitiveness and other attributes to allow for analysis. Other offices, such as local offices, judicial elections, and state legislative elections are in principal worthy of analysis, but either differ too much across states to be comparable or have insufficient information about competitiveness, degree of partisanship, etc. to be analyzed appropriately.

Our principal treatment variable is a binary indicator for whether or not a state used a direct primary for the relevant office in a given state year. We bring together

Table 1: Newspaper Sample

Newspaper	Number of Years	Year Range
Alton Evening Telegraph (Alton, Illinois)	26	1880-1930
The Altoona Tribune (Altoona, Pennsylvania)	26	1880-1930
The Atlanta Constitution (Atlanta, Georgia)	26	1880-1930
The Baltimore Sun (Baltimore, Maryland)	21	1890-1930
The Brooklyn Daily Eagle (Brooklyn, New York)	26	1880-1930
The Charlotte Observer (Charlotte, North Carolina)	26	1880-1930
Cincinnati Enquirer (Cincinnati, Ohio)	13	1900-1928
The Courier-Journal (Louisville, Kentucky)	36	1880-1930
The Daily Capital Journal (Salem, Oregon)	26	1880-1930
The Daily Deadwood Pioneer-Times (Deadwood, South Dakota)	19	1888-1928
The DeKalb Daily Chronicle (DeKalb, Illinois)	15	1896-1930
Denver Post (Denver, Colorado)	18	1896-1930
Detroit Free Press (Detroit, Michigan)	26	1880-1930
The Evening Review (East Liverpool, Ohio)	26	1880-1930
Fitchburg Sentinel (Fitchburg, Massachusetts)	26	1880-1930
The Indianapolis News (Indianapolis, Indiana)	26	1880-1930
The Iola Register (Iola, Kansas)	26	1880-1930
The Morning News (Wilmington, Delaware)	26	1880-1930
The News (Frederick, Maryland)	26	1880-1930
The Oshkosh Daily Northwestern (Oshkosh, Wisconsin)	26	1880-1930
The Pioneer (Bemidji, Minnesota)	10	1904-1922
The Portsmouth Herald (Portsmouth, New Hampshire)	12	1898-1924
Reno Evening Gazette (Reno, Nevada)	26	1880-1930
The San Bernardino County Sun (San Bernardino, California)	26	1880-1930
The St. Louis Post-Dispatch (St. Louis, Missouri)	26	1880-1930

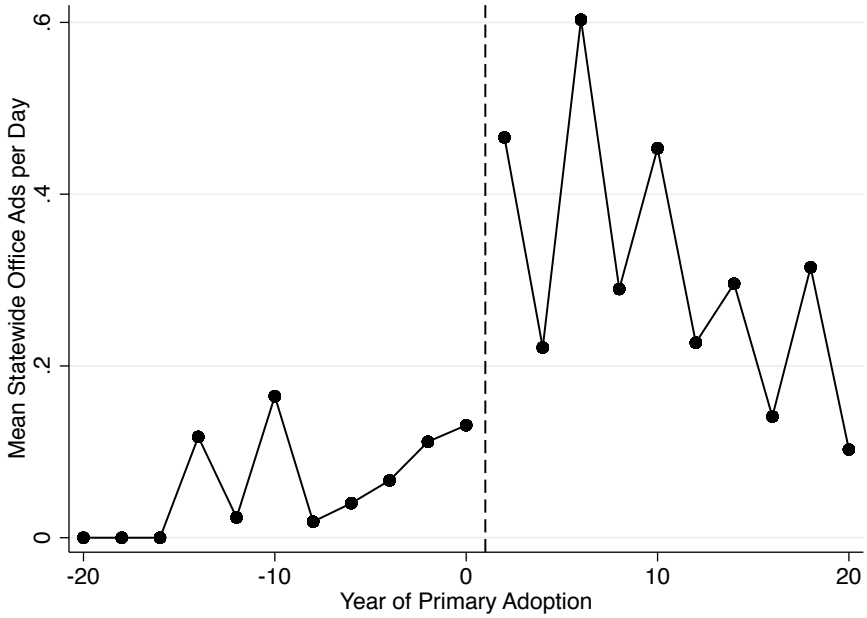

Figure 2: Ads per Day, Statewide Offices

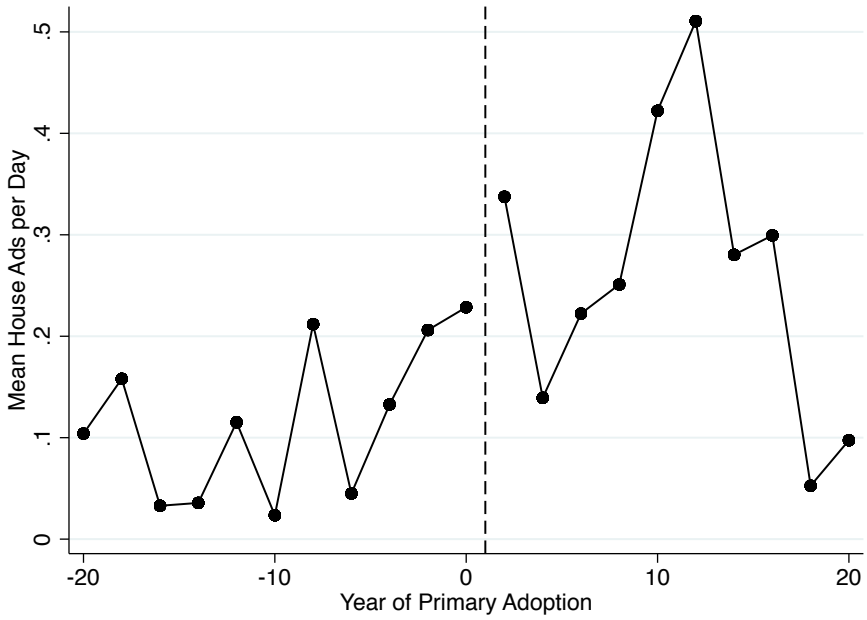

Figure 3: Ads per Day, U.S. House

data from a number of sources to arrive at a set of dates in which we are confident. Our principal source is **?**, who compile a definitive set of primary dates for non-Southern states. **?** provides dates for Southern states. Additionally, Michigan used the primary only for the Governor and not other statewide offices; for this reason, for the "statewide office" analyses below we code Michigan as "0.5." Differences between the use of primaries for state offices and the U.S. House are noted in **?**. Finally, for our placebo analysis of Presidential advertisements, in the rare cases that a primary is used for only one of statewide and US House races, we code that state's primary variable as "0.5" as well.

Two features of our sample should be highlighted. For many reasons the collection and analysis of advertisements from all U.S. local daily newspapers, or even a single newspaper from each U.S. state, is impractical. Nevertheless, our sample is both geographically diverse and mirrors the temporal uptake of the direct primary across all 50 states quite well. We map the states that are present in our sample in Figure **??**, with the fill color indicating the year of primary adoption. As the map indicates, though our sample is concentrated in the Midwest and Northeast, we have states from the South and West as well; the states that comprise the sample are geographically diverse and concentrated on the U.S. population in the period under study. We also plot, in Figure **??**, the uptake of the direct primary among all states and the states that comprise our sample. As this demonstrates, our sample captures the temporal uptake of the primary quite well. While those states that comprise our sample adopt the primary a bit later (due to our sample's avoidance of the one-party, early-adopting southern states) and ultimately more completely adopt the primary than the full cohort of states, the patterns mirror each other quite closely. Together, these figures suggest that our sample captures the temporal and geographic variation in direct primary adoption of the nation as a whole quite well, and that our inferences can be reasonably extrapolated beyond the relatively narrow sample of newspapers that we consider.

We also incorporate a number of time-varying covariates from the U.S. Census in

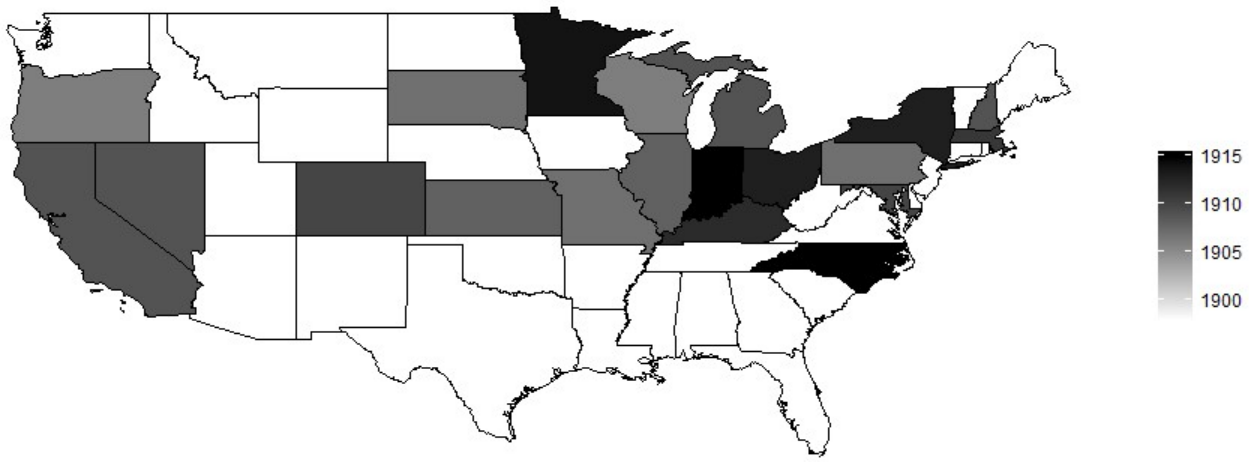

Figure 4: Geographic Distribution of Newspaper Sample and Year of Primary Adoption

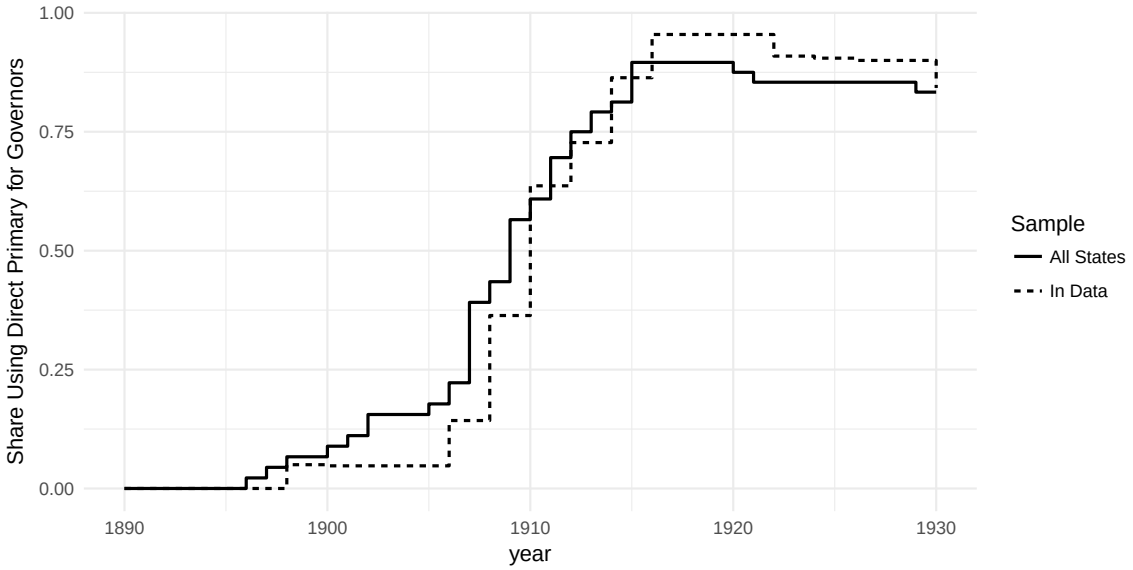

Figure 5: Primary Use over Time

our analysis. In particular, we incorporate controls for percent foreign born,[1] percent urban (in towns over 25,000 people), and the natural log of population, at the level of both the county and state in which the newspaper is located. These variables have all been connected either explicitly to the adoption of the direct primary (**?**) or to strong party organizations; more practically, these represent the full set of variables available from the Census at both the county and state level across the period of study.[2] Incorporating these covariates allows us to control for time-varying sources of confounding, enhancing the plausibility of our panel-based identification strategy.

Empirical Strategy

The adoption of the direct primary was not random; while, as is discussed below, some consequences of the reform were not foreseen, it was certainly understood that this was to be a major change in the way that U.S. elections are conducted, and considerable time and thought went into the reform's adoption. Developing an appropriate strategy to acquire credible causal estimates of the effect of the direct primary on personal campaigning therefore requires first a discussion of the "data-generating process" by which it came to be adopted at particular times in particular places.

The traditional view of the causes of the direct primary's adoption–which are, for our purposes, potential confounders of our causal effect of interest–holds that they were primarily related to a wave of reformist impulses, themselves caused by rampant corruption in political parties, that traditional party organizations were unable to weather (**?**). Primary adoptions was a "highly conflictual" contest between "antiparty reformers on the one side, and the urban machines on the other" (**?**, 131). This "progressive" view had long been accepted wisdom; for our purposes, this potential

[1]This variable changes in the census during our sample from "Percent Foreign Born" to "Percent White Foreign Born." Given low degrees of non-white immigration to the United States in this time (and the absence of an obvious break in the variable over time), we are comfortable combining these into one variable.

[2]Data was accessed using `Social Explorer`.

data-generating process is problematic, because it suggests that the adoption of the direct primary in a given state is associated with low party strength–an inability to further resist reform impulses. This is a time-varying attribute of states that is very difficult to measure and could quite plausibly confound our attempt to recover causal estimates. Fortunately, recent revisionist accounts call the progressive view into question.[3] **?**, the leading thinker in this revisionist line of scholarship, suggests a number of factors that contributed in part to the adoption of the direct primary: difficulties with nomination procedures as constituencies grew, the effectiveness of the Australian Ballot, the successful use of direct nominations in some small jurisdictions, self-interest by established politicians, and, in keeping with the progressive view, "the constraint imposed by public opinion" (**?**, 197-199). Most important for our purposes is Ware's claim that "it was unclear to most politicians how party interests would be affect by direct nominations" (**?**, 198). While public opinion honed in on direct primaries as *the* potential solution to issues with nominating processes, Ware's account paints competition and population growth (and the difficulties that they engendered in the existing convention system of nomination) as the principal causes of direct primary adoption; these are less concerning confounders for our quantities of interest.

Our principal strategy to account for the endogeneity of primary adoption, in keeping with the revisionist data-generating process described above, is to account for unobservable newspaper-specific attributes concerning the number of political advertisements that they run. The advertisements that comprise our outcome variable come from a diverse selection of newspapers that cover both the geographic span of the nation at the turn of the twentieth century as well as a variety of sizes of population centers. In our baseline specification, we allow newspaper-specific attributes to vary linearly over time, allowing for smoothly changing newspaper and geography characteristics that might otherwise confound the causal effect of direct primary adoption.

[3] **?** likens the "reformers versus machines" account to a recollection of WWII that casts Australia and Italy as the major protagonists.

We also incorporate year-specific indicators to allow for common shocks to all newspapers within a given year; this might, for example, capture the differences between midterm and presidential election years, or capture unique attributes associated with "realignment" elections (**?**). Finally, we suspect that some possible confounders are likely time-varying within state and may vary across states within year: we therefore draw both state- and county-level control variables from the US census to capture percent foreign-born, percent urban population, and the log of population at those levels, as these are variables associated with the urban machines that are held to be a possible instigator for primary adoption. These attributes result in our baseline specification: indexing newspapers with i, states with j, counties with c, and years with t, this specification is

$$ln(AdsPerDay)_{it} = \beta\ Primary_{jt} + \gamma_1\ \mathbf{X}_{jt} + \gamma_2\ \mathbf{X}_{ct} + \sum_{k=0}^{K} t^k \alpha_{ik} + \tau_t + \epsilon_{it}$$

In this specification, k gives the order of the polynomial that we allow unobserved newspaper-specific attributes to vary by over time; naturally, higher polynomials both increase the flexibility of the specification, but also sap considerable power. As is noted above, our baseline specification estimates a specification with $K = 1$, but we also demonstrate robustness to $K = 0$ and $K = 2$ in the Supplementary Materials.

Additionally, we test the possibility that the number of advertisements is not a function of newspaper-specific attributes, but rather a dynamic function of advertisements in the previous election year. This might be the case if, for instance, a newspaper alots and sells political advertising space based on demand and sales in the previous election cycle. The specification here is substantively similar to those above, simply substituting a lagged dependent variable for the newspaper fixed effect.

$$ln(AdsPerDay)_{it} = \beta\ Primary_{jt} + \gamma_1\ \mathbf{X}_{jt} + \gamma_2\ \mathbf{X}_{ct} + \phi\ ln(AdsPerDay)_{i,t-1} + \tau_t + \epsilon_{it}$$

This specification is particularly valuable insofar as it permits us to bound our point estimates for the effect of primary introduction on political advertising. As **?**, 245-247 note, fixed effects and lagged dependent variable models have a bracketing property: if the lagged-DV model is correct, the fixed effects estimates will tend to be too large; if the fixed effects model is correct, then the lagged-DV estimates will tend to be too small. The results below are consistent with this bracketing quality, and indicate that under either correct model the effect of the direct primary will be positive and statistically significant.

In addition to demonstrating robustness of point estimates across a variety of specifications, we also take statistical inference seriously. Because uncertainty estimates in panel settings can be dramatically deflated under incorrect and untenable assumptions about the data-generating process (**?**), we explicitly account for the "clustered" structure of the data–and the strong likelihood for within-unit correlation across time periods–in deriving uncertainty estimates. Our baseline estimates employ a typical strategy to address this concern, the use of cluster-robust asymptotic standard errors.

Results

We present results for two offices. First, we analyze advertisements for state offices such as governor, lieutenant governor, and so forth. These results are consistent with our expectations: the onset of the direct primary is associated with an increase of between ten and fifteen percent in advertising for these statewide offices. We then present analogous results for the U.S. House; these findings are not consistent with expectations. Effects for the U.S. House are substantively small, incorrectly signed, and statistically insignificant. We offer thoughts on this discrepancy in the "Discussion" section below.

State Offices

The results of our analysis for state offices are presented in Table **??**. The table presents five sets of results: with no covariates, with only state covariates, with only county covariates, with both state and county covariates, and with state and county covariates and a measure of electoral competitiveness.[4] The estimates are the result, as discussed above, of estimating a model with a linear newspaper-specific trend, thus capturing unobservable newspaper- (and newspaper jurisdiction-) specific attributes that change linearly over time. Year fixed effects are included to account for year-specific shocks common to all newspapers.

The results are broadly consistent across the presented models and are supportive of our claim that the introduction of the direct primary ought to increase candidate-centered campaigning, here operationalized as candidate-specific advertising. Across specifications the coefficient on *Primary* is positive and statistically significant at a $p < 0.05$ level. Because the outcome is logged, we can interpret the coefficients roughly as percent increases in newspaper ads per day; accordingly, our estimates suggest an increase of between ten and fifteen percent in advertisements per day due to the introduction of the direct primary.

These results are robust across a number of alternative specifications. Specifically, we estimate models with analogous sets of control variables to those in Table **??**, but employing quadratic newspaper trends as well as more-typical newspaper fixed effects. The results are robust to those specifications, with no estimate from any such model producing an estimate of the effect of primary introduction of less than 0.08. The most flexible and complete model, that with quadratic newspaper trends and a full battery of state and county covariates, produces an estimate of a fourteen percent increase in advertising.

[4]This measure is the absolute value of the previous year's statewide Democratic vote less 0.5; higher values therefore capture that the previous electoral cycle was uncompetitive, lower values indicate higher competition.

Table 2: Effect of Primaries on Statewide Office Advertising

	(1)	(2)	(3)	(4)	(5)
	ln(State Office Ads Per Day)				
Primary	0.134*	0.110*	0.133*	0.111*	0.164*
	(0.0540)	(0.0519)	(0.0516)	(0.0529)	(0.0707)
Percent Foreign Born, State		0.00976		0.00550	0.0161
		(0.0105)		(0.0149)	(0.0124)
Percent in Towns over 2,500, State		-0.0234***		-0.0222***	-0.0339***
		(0.00368)		(0.00440)	(0.00575)
Percent Urban, State		0.00729		0.00716	0.00805
		(0.00573)		(0.00557)	(0.00616)
Percent Black, State		-0.00371		0.00304	0.0251
		(0.0156)		(0.0188)	(0.0160)
Percent Other Race, State		-0.0187		-0.0175	-0.0440
		(0.0110)		(0.0119)	(0.0276)
ln(Population), State		0.395*		0.392	0.143
		(0.183)		(0.214)	(0.161)
Percent Foreign Born, County			0.0101	0.00873	0.00380
			(0.00511)	(0.00986)	(0.00855)
Percent Urban, County			-0.00198	-0.00176	-0.00244
			(0.00176)	(0.00182)	(0.00194)
ln(Population), County			0.00915	-0.0904	-0.0390
			(0.0965)	(0.0886)	(0.143)
Population Density, County			-0.000139***	-0.000113**	-0.000115***
			(0.0000305)	(0.0000342)	(0.0000300)
Competitiveness, Lagged					0.315
					(0.353)
Linear Newspaper Trends	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	460	460	459	459	362
R^2	0.643	0.664	0.653	0.672	0.635

Standard errors (clustered by state) in parentheses. $^{*}p < 0.05$

Finally, we re-estimate our quantity of interest using the lagged dependent variable (LDV) model discussed above. Estimates from our LDV model are at the low end of estimates from our previous models, consistent with the bracketing property described above, while still suggesting about a ten percent increase in advertisements due to primary introduction. The LDV estimates are also significant at conventional levels. While we believe that unobservable and smoothly time-varying attributes represent a more plausible data-generating process for our data, it is nevertheless heartening that this alternative model, deriving from a different data-generating process, produces similar estimates with substantive conclusions that are effectively the same as those derived from our baseline estimates.

U.S. House

We next present results for U.S. House advertising. As is mentioned above, these results do not conform with our theoretical expectations. Instead of positive and statistically significant results, we are left with (relatively) imprecise, negative, statistically insignificant estimates. Our baseline results, again from a model with linear newspaper-specific trends and year fixed effects, are presented in Table **??**. The estimates hover between a negative four and negative seven percent *decrease* in U.S. House advertising, with standard errors larger in magnitude than these point estimates.

In keeping with the above findings, however, the results are consistent across specifications. We again re-estimate a variety of models, using different newspaper-specific trends and LDVs, and find broadly consistent results. In no specification is our estimate distinguishable from zero at conventional levels, and the estimates are uniformly negative. Standard errors are consistently as large or larger than those from our estimates for statewide offices, despite having consistent biannual elections for the House and, accordingly, more data in the U.S. House specifications. While this result is surprising, we offer a number of plausible explanations for this discrepancy in the "Discussion"

Table 3: Effect of Primaries on US House Advertising

	(1)	(2)	(3)	(4)	(5)
	ln(U.S. House Ads Per Day)				
Primary	-0.0507	-0.0497	-0.0476	-0.0517	-0.0692
	(0.0628)	(0.0600)	(0.0623)	(0.0585)	(0.0839)
Percent Foreign Born, State		-0.00467		0.00341	0.0112
		(0.0127)		(0.0208)	(0.0219)
Percent in Towns over 2,500, State		0.000991		0.000714	-0.00111 ¿
		(0.00377)		(0.00369)	(0.00375)
Percent Urban, State		0.00652		0.00732	0.00355
		(0.00678)		(0.00604)	(0.00677)
Percent Black, State		-0.0159		-0.00756	0.00386
		(0.0117)		(0.0137)	(0.0233)
Percent Other Race, State		-0.0224		-0.0282	-0.0404
		(0.0116)		(0.0136)	(0.0225)
ln(Population), State		-0.0850		0.00639	0.0168
		(0.135)		(0.245)	(0.312)
Percent Foreign Born, County			-0.00772	-0.0150	-0.0154
			(0.00831)	(0.0110)	(0.0146)
Percent Urban, County			-0.00220**	-0.00206	-0.00272**
			(0.000758)	(0.00114)	(0.000945)
ln(Population), County			-0.138	-0.194	-0.382
			(0.163)	(0.204)	(0.330)
Population Density, County			-0.0000493	-0.0000523	-0.0000887
			(0.0000600)	(0.0000592)	(0.0000557)
Lagged Competitiveness					-0.0789
					(0.349)
Linear Newspaper Trends	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	586	586	585	585	427
R^2	0.366	0.372	0.376	0.385	0.406

Standard errors (clustered by state) in parentheses. $^{*}p < 0.05$

section below.

Placebo: President

Our findings for our hypothesis are mixed: while results for state offices are in keeping with our expectations, those for the U.S. House are substantively small, statistically insignificant, and incorrectly signed. The robustness of these results across alternative specifications, with alternative means of control for unobservables and explicit control for different sets of observable confounders, suggests that they are not spurious.

As a further test to demonstrate that the results above are, in fact, accurate representations of primaries' causal effect on advertising, we also search for a causal effect where there ought not to be one: in presidential newspaper advertising. Because primaries were explicitly used for state offices and the U.S. House but *not* for presidential nominations in this period, there is no reason to expect the introduction of primaries to affect presidential advertising practices, at least in the short term. This analysis therefore provides a valuable placebo test; while a non-finding is not dispositive proof of our design's adequacy, a positive finding would suggest the existence of unaccounted-for time-varying confounding.

To conduct this placebo test we simply estimate the causal effect of primaries on presidential advertising, using the same specification as above. These estimates, presented in Table **??**, indicate a near-zero causal effect of primaries on presidential newspaper advertising.

These estimates are heartening; the largest point estimate is one-third as large as estimates for state-office advertising; the most credible models predict an effect of around a two-percent increase in presidential advertising with the onset of the primary. The results do not approach statistical significance. Estimates from a model with newspaper fixed effects have the effect near zero, and occasionally negative; estimates from a model with quadratic state trends have the effect slightly higher, near 0.06,

Table 4: Effect of Primaries on Presidential Advertising

	(1)	(2)	(3)	(4)	(5)
			ln(President Ads Per Day)		
Primary	0.0175	0.0308	0.00655	0.0213	0.0135
	(0.0827)	(0.0898)	(0.0835)	(0.0962)	(0.168)
Percent Foreign Born, State		0.0137		0.0224	0.0468
		(0.00998)		(0.0116)	(0.0261)
Percent in Towns over 2,500, State		0.000312		0.000787	0.00470 ¿
		(0.00561)		(0.00492)	(0.00497)
Percent Urban, State		0.00295		-0.000125	-0.00321
		(0.00599)		(0.00574)	(0.00630)
Percent Black, State		0.00807		0.00466	-0.0201
		(0.0239)		(0.0331)	(0.0447)
Percent Other Race, State		0.0115		0.0170	0.0274
		(0.0226)		(0.0325)	(0.0221)
ln(Population), State		-0.546*		-0.775*	-0.840*
		(0.210)		(0.280)	(0.399)
Percent Foreign Born, County			-0.000644	-0.00100	-0.00888
			(0.0143)	(0.0157)	(0.0252)
Percent Urban, County			0.00131	0.00120	0.00243
			(0.00394)	(0.00414)	(0.00441)
ln(Population), County			0.160	0.420*	0.554**
			(0.157)	(0.198)	(0.178)
Population Density, County			0.000117*	0.0000783	0.000111
			(0.0000491)	(0.0000496)	(0.0000719)
Lagged Competitiveness					0.360
					(0.768)
Newspaper Linear Trends	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	299	299	298	298	219
R^2	0.414	0.429	0.422	0.446	0.509

Standard errors (clustered by state) in parentheses. $^{*}p < 0.05$

but with large standard errors; an LDV model results in estimates hovering around, and generally slightly below, zero. These presidential results are therefore relatively consistent in suggesting an effect at or near zero.Our results for the two treated offices, and particularly for statewide offices, are both more consistent across specifications and substantively larger in magnitude than the placebo results using the president. The results presented in Table **??** provide confidence that the findings for the treated offices are accounting for sufficient confounding to recover accurate causal estimates of the effect of primary adoption on candidate-centered newspaper advertising.

Discussion

The results presented above are partially confirmatory of our expectations: while advertising for state office candidates markedly increased following the introduction of the direct primary, advertising for the U.S. House actually slightly *decreased*. In this section we address some possible explanations for this unexpected result. In particular, we examine constituency size and substitutes for advertising, the nature of legislative organization relative to executive offices, and possible data-driven causes.

We posit above that primaries engender candidate-centered advertising in two principal ways. Firstly, decreasing incentives for parties to invest resources on their candidates behalf lead to increased incentives for candidates to campaign themselves. Second, a "selection effect" whereby candidates who are skilled individual campaigners are disproportionately likely to win primaries and will put these skills to use in a general election campaign. Both of these suggest, in some respect, that individualized campaigning is the natural substitute for party-based campaigning. Our operationalization of "candidate-centered campaigning," however, possibly misses the fact that candidates need not substitute newspaper advertising specifically for party campaigning: there are other types of individualized, candidate-centered campaigning that may be as or more effective. One possible reason for our findings, then, is that these alternative substi-

tutes for party-based campaigns are more effective for U.S. House candidates, with their much-smaller constituencies, than for candidates for statewide office. In-person campaigning would likely be much more effective, especially in urban constituencies which are disproportionately represented in our data. Relatedly, though our sample is in the years before the dramatic incumbency advantage caught the eye of political scientists (**?**), candidates for the U.S. House represented local constituencies without limit on the number of terms they serve (including for state legislature, if that preceded such a run). On the other hand, many state-level executive offices at this point had already instituted term limits, ensuring a stream of fresh, relatively unknown faces running for state office and creating races for state office that were regularly competitive (outside the South). Therefore, while the introduction of the direct primary requires both state office and U.S. House candidates to search for a substitute for party-centered campaigning, our measure of candidate-centered campaigning may be inadequate to capture this phenomenon for U.S. House candidates, who disproportionately enjoy small, local constituencies and the perquisites of incumbency.

Finally, there are significant differences between the political arena in which legislative and executive elected officials find themselves. Once elected, legislators operate in an environment that is organized and operated through a partisan structure. Committee allocations, leadership elections, and nearly every other element of legislative organization is structured in a partisan way (**?**). In the modern era, political advertisements routinely attempt to tie candidates for Congress or state legislatures to their unpopular party leaders in the chamber. Executive officers, however, do not operate in an environment so structured by partisan expectations, and often assume a managerial, less-ideological political role.[5]

Another distinct difference between legislative and executive officials is their capacity to develop name recognition, and accordingly their need to boost it through

[5] **?**, for example, finds little-to-no effect of gubernatorial partisanship on policy outcomes; **?**, contrarily, finds strong effects for state legislative partisan control.

newspaper advertisements. While no term limits exist for the U.S. House, permitting members to re-run perpetually, by the time of our study many states had already adopted term limits for executive offices. As such, in keeping with the above discussion, Members of Congress may simply have had less need to substitute personal for partisan advertising because of existing name recognition, while candidates for statewide office may not have appeared on the ballot for that role over that geographic space before. These important differences for legislative and executive offices may go some distance in explaining our findings.

Finally, one possible explanation for our finding is the difficulty of coding US House advertisements successfully. In our qualitative experience, advertisements for statewide offices and the presidency were quite straightforward to code, often being full- or half-page advertisements, while those for the House were smaller and often difficult to distinguish from newspaper-provided editorials or informational reporting. The noise induced by this difficulty may have affected the quality of our inferences above.

Conclusion

Scholars have long posited, without quantitative evidence, that the direct primary contributes to the uniquely candidate-centered nature of American elections. In this paper, we carefully describe how it is that primary elections can be expected to encourage candidate-centered campaigning relative to party-centered campaigning, and demonstrate that for at least some offices the adoption of the direct primary had a positive causal effect on candidate advertising. We therefore provide some of the first empirical evidence that direct primaries are directly responsible for candidate-centered campaigning in the United States.

We nevertheless leave many questions unanswered. One question, which we are ill-equipped to address, were the consequences of this advertising boost. Previous work has documented significant consequences of primary elections, such as declines

in third party voting (**?**) and the decreasing of party unity in Congress (**?**). To what extent any of these findings, or innumerable yet-discovered consequences of primaries, are attributable in whole or in part to increasingly candidate-centered advertising, remains beyond our reach, and a topic worthy of further consideration.

The uniqueness of American politics, particularly as regards the role American political parties play, has long been of interest to political observers and political scientists. Similarly, the direct primary has long been a suspect in the quest to discover what drives this American uniqueness. In this paper, we offer evidence that this suspicion has been, at least in part, well-founded. The direct primary does appear to cause a boost in candidate advertising for statewide office; why we fail to document an analogous increase for the US House remains something of a puzzle. The primary's central place in accounts of American political uniqueness, however, appears to be justified.

Appendix

Alternative Panel Models

In this section, we re-run our analysis using alternative state-office polynomial trends. For each of the three offices that we analyze, we re-estimate the models in the text tables using both newspaper fixed effects (constant trends) and quadratic newspaper trends.

Table 5: Effect of Primaries on Statewide Office Advertising, Newspaper Fixed Effects

	(1)	(2)	(3)	(4)	(5)
			ln(State Office Ads Per Day)		
Primary	0.130*	0.0939*	0.103*	0.0824*	0.127*
	(0.0489)	(0.0383)	(0.0383)	(0.0383)	(0.0543)
Percent Foreign Born, State		-0.00563		-0.00305	-0.00686
		(0.00640)		(0.0109)	(0.00967)
Percent in Towns over 2,500, State		-0.0232**		-0.0227**	-0.0249*
		(0.00660)		(0.00701)	(0.00966)
Percent Urban, State		0.00814*		0.00784	0.0103
		(0.00381)		(0.00392)	(0.00522)
Percent Black, State		0.0234		0.0233	0.0394
		(0.0113)		(0.0113)	(0.0199)
Percent Other, State		-0.0508		-0.0516	-0.0814*
		(0.0318)		(0.0310)	(0.0376)
ln(Population), State		-0.0429		-0.0123	-0.239*
		(0.126)		(0.101)	(0.0954)
Percent Foreign Born, County			-0.00528	-0.00285	0.00654
			(0.00784)	(0.0100)	(0.00753)
Percent Urban, County			-0.00195	-0.00172*	-0.00161
			(0.00124)	(0.000626)	(0.000896)
ln(Population), County			0.0339	-0.00766	0.0370
			(0.118)	(0.0542)	(0.0659)
Population Density, County			-0.0000666	-0.0000208	-0.0000202
			(0.0000692)	(0.0000649)	(0.0000729)
Lagged Competitiveness					0.280
					(0.306)
Newspaper Fixed Effects	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	460	460	459	459	362
R^2	0.525	0.607	0.537	0.611	0.583

Standard errors (clustered by state) in parentheses.

Table 6: Effect of Primaries on Statewide Office Advertising, Quadratic Newspaper Trends

	(1)	(2)	(3)	(4)	(5)
	ln(State Office Ads Per Day)				
Primary	0.154*	0.145*	0.145*	0.141*	0.164*
	(0.0555)	(0.0546)	(0.0536)	(0.0536)	(0.0707)
Percent Foreign Born, State		0.0170		0.00520	0.0161
		(0.0108)		(0.0118)	(0.0124)
Percent in Towns over 2,500, State		-0.00760		-0.00615	-0.0339***
		(0.00560)		(0.00490)	(0.00575)
Percent Urban, State		-0.00802		-0.00628	0.00805
		(0.00848)		(0.00812)	(0.00616)
Percent Black, State		0.0192		0.0137	0.0251
		(0.0155)		(0.0159)	(0.0160)
Percent Other Race, State		-0.0233		-0.0212	-0.0440
		(0.0192)		(0.0144)	(0.0276)
ln(Population), State		0.546*		0.635*	0.143
		(0.246)		(0.272)	(0.161)
Percent Foreign Born, County			0.0206	0.0120	0.00380
			(0.0118)	(0.00754)	(0.00855)
Percent Urban, County			0.000752	0.000389	-0.00244
			(0.00128)	(0.00141)	(0.00194)
ln(Population), County			-0.0395	-0.169	-0.0390
			(0.140)	(0.0839)	(0.143)
Population Density, County			0.0000496	0.0000832	-0.000115***
			(0.0000323)	(0.0000442)	(0.0000300)
Lagged Competitiveness					0.315
					(0.353)
Newspaper Quadratic Trends	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	460	460	459	459	362
R^2	0.687	0.704	0.692	0.707	0.635

Standard errors (clustered by state) in parentheses.

Table 7: Effect of Primaries on US House Advertising, Fixed Effects

	(1)	(2)	(3)	(4)	(5)
	ln(U.S. House Ads Per Day)				
Primary	-0.0297	-0.0490	-0.0323	-0.0538	-0.0830
	(0.0509)	(0.0513)	(0.0514)	(0.0537)	(0.0752)
Percent Foreign Born, State		-0.00610		-0.00977	-0.0154
		(0.00746)		(0.0104)	(0.0142)
Percent in Towns over 2,500, State		-0.00103		-0.000706	0.000144 ¿
		(0.00283)		(0.00289)	(0.00392)
Percent Urban, State		0.000314		0.00119	0.00191
		(0.00628)		(0.00600)	(0.00679)
Percent Black, State		0.00936		0.00776	0.0107
		(0.0117)		(0.0122)	(0.0140)
Percent Other Race, State		0.00229		-0.00374	-0.0113
		(0.00957)		(0.0105)	(0.0155)
ln(Population), State		0.0645		0.129	0.0833
		(0.114)		(0.0918)	(0.115)
Percent Foreign Born, County			-0.00342	0.00217	0.00626
			(0.00725)	(0.00988)	(0.0145)
Percent Urban, County			0.000152	-0.0000450	0.000196
			(0.00124)	(0.000811)	(0.00107)
ln(Population), County			-0.0429	-0.130	-0.192*
			(0.0520)	(0.0664)	(0.0913)
Population Density, County			0.0000166	0.0000320	0.00000833
			(0.0000273)	(0.0000288)	(0.0000517)
Lagged Competitiveness					0.140
					(0.292)
Newspaper Fixed Effects	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	586	586	585	585	427
R^2	0.298	0.307	0.301	0.316	0.325

Standard errors (clustered by state) in parentheses.

Table 8: Effect of Primaries on US House Advertising, Quadratic Trends

	(1)	(2)	(3)	(4)	(5)
			ln(U.S. House Ads Per Day)		
Primary	-0.0204	-0.0340	-0.0248	-0.0371	-0.0691
	(0.0613)	(0.0618)	(0.0635)	(0.0613)	(0.0934)
Percent Foreign Born, State		-0.0179		-0.0117	-0.00382
		(0.0143)		(0.0206)	(0.0235)
Percent in Towns over 2,500, State		-0.0000903		-0.00183	-0.00482 ¿
		(0.00650)		(0.00614)	(0.00758)
Percent Urban, State		0.00361		0.00659	-0.000803
		(0.00972)		(0.0111)	(0.0131)
Percent Black, State		-0.0299*		-0.0306*	-0.0269
		(0.0139)		(0.0145)	(0.0235)
Percent Other Race, State		-0.0291		-0.0358	-0.0389
		(0.0230)		(0.0270)	(0.0296)
ln(Population), State		0.00837		0.179	0.153
		(0.198)		(0.194)	(0.182)
Percent Foreign Born, County			-0.0142	-0.0148	-0.0205
			(0.0109)	(0.0124)	(0.0139)
Percent Urban, County			-0.00204	-0.00114	-0.00126
			(0.00155)	(0.00152)	(0.00155)
ln(Population), County			-0.129	-0.290	-0.337
			(0.264)	(0.310)	(0.403)
Population Density, County			-0.000000392	0.0000140	-0.0000541
			(0.0000631)	(0.0000624)	(0.0000663)
Lagged Competitiveness					-0.226
					(0.383)
Newspaper Quadratic Trends	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	586	586	585	585	427
R^2	0.418	0.425	0.425	0.436	0.472

Standard errors (clustered by state) in parentheses.

Table 9: Effect of Primaries on Presidential Advertising, Fixed Effects

	(1)	(2)	(3)	(4)	(5)
			ln(President Ads Per Day)		
Primary	-0.00706		-0.0160	-0.00584	0.00478
	(0.0533)		(0.0688)	(0.0760)	(0.114)
Percent Foreign Born, State		-0.0113		-0.0151	-0.0186
		(0.0118)		(0.0109)	(0.0158)
Percent in Towns over 2,500, State		0.00723		0.00659	0.00617
		(0.00392)		(0.00346)	(0.00406)
Percent Urban, State		0.00370		0.00339	0.00401
		(0.00531)		(0.00519)	(0.00555)
Percent Black, State		0.0104		0.0103	-0.0128
		(0.0111)		(0.00967)	(0.0168)
Percent Other Race, State		0.0136		0.0147	0.0132
		(0.0156)		(0.0163)	(0.0173)
ln(Population), State		-0.267*		-0.284	-0.235
		(0.121)		(0.146)	(0.199)
Percent Foreign Born, County			-0.00943	0.00244	0.00244
			(0.00826)	(0.00691)	(0.0116)
Percent Urban, County			0.00302	0.00271	0.00215
			(0.00266)	(0.00242)	(0.00350)
ln(Population), County			0.0119	0.0246	-0.000690
			(0.0567)	(0.0903)	(0.110)
Population Density, County			0.0000850**	0.0000640**	0.0000869
			(0.0000253)	(0.0000175)	(0.0000559)
Lagged Competitiveness					0.421
					(0.696)
Observations	299	299	298	298	219
R^2	0.321	0.353	0.344	0.367	0.386
Newspaper Fixed Effects	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓

Standard errors (clustered by state) in parentheses.

Table 10: Effect of Primaries on Presidential Advertising, Quadratic Trends

	(1)	(2)	(3)	(4)	(5)
			ln(President Ads Per Day)		
Primary	0.0659	0.0647	0.0612	0.0577	0.0760
	(0.0886)	(0.0903)	(0.0938)	(0.0966)	(0.171)
Percent Foreign Born, State		0.00353		0.00274	0.0464
		(0.0155)		(0.0199)	(0.0503)
Percent in Towns over 2,500, State		-0.00298		-0.00213	0.00519
		(0.00929)		(0.00881)	(0.0145)
Percent Urban, State		0.0241		0.0191	0.0190
		(0.0122)		(0.0119)	(0.0123)
Percent Black, State		0.00552		0.0134	-0.000116
		(0.0312)		(0.0351)	(0.0420)
Percent Other Race, State		0.0385		0.0494	0.0391
		(0.0269)		(0.0403)	(0.0453)
ln(Population), State		-0.369		-0.554	-0.776
		(0.223)		(0.330)	(0.998)
Percent Foreign Born, County			-0.00400	0.00348	-0.0114
			(0.0176)	(0.0176)	(0.0364)
Percent Urban, County			0.00143	-0.0000903	0.00286
			(0.00357)	(0.00398)	(0.00427)
ln(Population), County			0.250	0.455*	0.460
			(0.258)	(0.201)	(0.352)
Population Density, County			0.000130	0.0000761	0.0000465
			(0.0000886)	(0.0000799)	(0.000235)
Lagged Competitiveness					-0.0333
					(1.176)
Newspaper Quadratic Trends	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	299	299	298	298	219
R^2	0.485	0.508	0.494	0.522	0.615

Standard errors (clustered by state) in parentheses.

Lagged DV Models

We estimate a number of models under an alternative identifying assumption, selection on observables and past outcomes, using an LDV. These models ought to provide a "lower bound" for our treatment effect if a fixed effects model is true, and are more robust to violations of the parallel trends assumption than standard panel models.

Table 11: Effect of Primaries on Statewide Office Advertising, Lagged DV

	(1)	(2)	(3)	(4)	(5)
		ln(State Office Ads Per Day)			
Primary	0.0946*	0.105*	0.109**	0.136**	0.146**
	(0.0396)	(0.0415)	(0.0288)	(0.0418)	(0.0509)
Percent Foreign Born, State		0.00335		0.00546	0.00945
		(0.00294)		(0.00605)	(0.00697)
Percent in Towns over 2,500, State		-0.00238		-0.00268	-0.00402
		(0.00260)		(0.00364)	(0.00432)
Percent Urban, State		0.00167		0.0000667	0.00116
		(0.00290)		(0.00242)	(0.00231)
Percent Black, State		-0.00102		-0.00167	-0.000760
		(0.00105)		(0.00149)	(0.00239)
Percent Other Race, State		0.0141		0.0163*	0.0188*
		(0.00899)		(0.00725)	(0.00665)
ln(Population), State		-0.0316		-0.0458	-0.0315
		(0.0215)		(0.0248)	(0.0278)
Percent Foreign Born, County			0.00523**	-0.00125	-0.00336
			(0.00184)	(0.00487)	(0.00601)
Percent Urban, County			0.00116*	-0.000201	0.000210
			(0.000510)	(0.00114)	(0.00142)
ln(Population), County			-0.0641*	0.0379	0.0334
			(0.0237)	(0.0596)	(0.0706)
Population Density, County			0.0000488*	0.0000515*	0.0000231
			(0.0000217)	(0.0000209)	(0.0000241)
Lagged Competitiveness					-0.246
					(0.230)
Lagged DV	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	459	459	458	458	362
R^2	0.360	0.415	0.403	0.450	0.405

Standard errors (clustered by state) in parentheses.

Table 12: Effect of Primaries on US House Advertising, Lagged DV

	(1)	(2)	(3)	(4)	(5)
	ln(U.S. House Ads Per Day)				
Primary	-0.0152	-0.0212	-0.0127	-0.0176	-0.0523
	(0.0466)	(0.0484)	(0.0417)	(0.0436)	(0.0588)
Percent Foreign Born, State		0.00385		0.00360	0.000438
		(0.00247)		(0.00570)	(0.00635)
Percent in Towns over 2,500, State		-0.00450		-0.00363	-0.00440
		(0.00227)		(0.00287)	(0.00328)
Percent Urban, State		0.00398		0.00248	0.00297
		(0.00234)		(0.00193)	(0.00198)
Percent Black, State		-0.00212*		-0.00231*	-0.00414**
		(0.000845)		(0.000893)	(0.00117)
Percent Other Race, State		-0.00346		-0.00133	-0.000781
		(0.00512)		(0.00372)	(0.00431)
ln(Population), State		0.00822		0.00902	0.0105
		(0.0134)		(0.0130)	(0.0146)
Percent Foreign Born, County			0.00414**	0.00109	0.00396
			(0.00118)	(0.00417)	(0.00492)
Percent Urban, County			0.000318	0.000499	0.000399
			(0.000467)	(0.000599)	(0.000774)
ln(Population), County			-0.00131	0.00360	-0.00557
			(0.0194)	(0.0422)	(0.0516)
Population Density, County			0.0000112*	0.0000121**	0.0000332***
			(0.00000457)	(0.00000413)	(0.00000628)
Lagged Competitiveness					0.200
					(0.167)
Lagged DV	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	585	585	584	584	427
R^2	0.224	0.250	0.262	0.271	0.271

Standard errors (clustered by state) in parentheses.

Table 13: Effect of Primaries on Presidential Advertising, Lagged DV

	(1)	(2)	(3)	(4)	(5)
			ln(President Ads Per Day)		
pres_primary	-0.00843	0.00304	-0.000699	-0.0151	-0.0234
	(0.0368)	(0.0438)	(0.0391)	(0.0444)	(0.0797)
Percent Foreign Born, State		-0.00359		-0.00772	-0.0111
		(0.00251)		(0.00642)	(0.00652)
Percent in Towns over 2,500, State		0.0000708		0.00305	0.00349
		(0.00211)		(0.00240)	(0.00259)
Percent Urban, State		0.00215		0.000504	0.000918
		(0.00196)		(0.00194)	(0.00186)
Percent Black, State		-0.00199		-0.00163	-0.00325
		(0.00104)		(0.00117)	(0.00253)
Percent Other Race, State		0.0116		0.0116	0.00765
		(0.00557)		(0.00733)	(0.00892)
ln(Population), State		0.0273**		0.0436**	0.0404
		(0.00834)		(0.0130)	(0.0214)
Percent Foreign Born, County			0.000278	0.00354	0.00567
			(0.00131)	(0.00457)	(0.00523)
Percent Urban, County			-0.000430	0.000959	0.000563
			(0.000914)	(0.00128)	(0.00142)
ln(Population), County			0.0157	-0.0631	-0.0655
			(0.0258)	(0.0369)	(0.0532)
Population Density, County			0.0000198**	0.0000224**	0.0000232*
			(0.00000664)	(0.00000587)	(0.00000858)
Lagged Competitiveness					0.307
					(0.469)
Lagged DV	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	298	298	297	297	219
R^2	0.233	0.261	0.247	0.276	0.314

Standard errors (clustered by state) in parentheses.