Does Public Election Funding Create More Extreme Legislators? Evidence from Arizona and Maine

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Abstract
We investigate whether Maine and Arizona's Clean Elections laws, which provide public funding for state legislative candidates, are responsible for producing a new cadre of legislators who are unusually ideologically extreme. We find that there is essentially no important difference in the legislative voting behavior of "clean" funded legislators and traditionally funded ones in either Arizona or Maine: Those who are financed by private donors are no more or less ideologically extreme than those who are supported by the state. This finding calls into question some concerns about the effects on polarization of money generally and public funding in particular.

As many political observers have noted, campaign spending and party polarization in American politics have increased to record levels with near simultaneity in recent years (Herrera *et al.* 2008). Indeed, political journalism is filled with stories linking campaign spending to party polarization. For instance, a recent *Atlantic* article on campaign spending was entitled, "How Big Money Created the Most Polarized Congress in a Century" (Graham 2013). In a separate piece, Ezra Klein (2013) warned, "Big money corrupts Washington. Small donors polarize it." To be sure, at least a temporal correlation exists, as the last two decades have seen dramatic increases in both federal campaign spending and the polarization of Congress.

It is not wholly implausible to suggest a link between candidate extremism and campaign finance regulations and/or campaign contributions For instance, since frequent contributors tend to be more ideologically extreme (e.g. Bonica 2014), it seems possible that donors may exert a polarizing influence on legislative candidates, who might seek to repay their supporters after the election. Alternatively, assuming that political money exists in a marketplace in which candidates with a high likelihood of winning attract the most donations, the difficulty in fundraising that very extreme candidates are likely to face may serve a gate-keeping function, keeping ideologically extreme candidates out of contention. That is, candidates with highly extreme policy views may simply have a difficult time finding enough donors willing to support their agenda. It therefore remains a largely open question whether privately donated money affects the tone of legislative politics. Put another way: Were campaign contributions removed from the equation, would legislators be more or less ideologically extreme?

The experiences of Arizona and Maine allow this question to be engaged, as both states have since 2000 offered a robust public financing system for state legislative campaigns.[1] The programs, which proponents have dubbed "Clean Elections," provide candidates with a typical campaign's worth of funding in lump-sum grants from the state treasury, pending their ability to prove their viability by securing a fixed number of five-dollar contributions. In exchange, candidates agree to forego private donations, and to cap their spending at predetermined amounts (for a full description see: Miller 2014). As with all public funding programs in the United States, participation in the Clean Elections program is optional. Through the 2008 election, participating candidates running against privately financed candidates received matching funds from the state if their opponents' spending exceeded the spending limit.[2] Even in the absence of matching funds, "clean" candidates differ from those in most American elections in that they receive the vast majority of their funding from a single state source. By examining the subsequent legislative voting behavior of those candidates who take advantage of this "clean" campaign funding system and those who do not, we can assess whether legislators who accept public funding—and thus forego private contributions during their election campaigns—differ with regard to their ideological extremism from "traditional" candidates who accept private contributions.

Our study finds that there was essentially no important difference in the legislative voting behavior of "clean" funded legislators and traditionally funded ones in either Arizona or Maine during the 2000s, after Clean Elections was implemented. This finding is consistent with others suggesting only minimal impacts of campaign fundraising on the behavior of elected officials

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[1] Connecticut also offers full public funding to legislative candidates. However, since it began its system in 2008—much later than Arizona and Maine—we are not able to include Connecticut in our analysis.

[2] The "matching funds" provisions were struck down as unconstitutional in a 2011 U.S. Supreme Court decision, but had been enjoined during the 2010 race in Arizona pending the outcome of that case.

(Levitt 1994) but calls into question some concerns about the effects on polarization of money generally and public funding in particular. Our findings suggest that concerns about the influence of money on political tone may be overstated: Spending and polarization may be increasing simultaneously, but one is not necessarily leading to the other.

Public Funding and Legislative Extremism

There is some reason to expect that adjustments to campaign finance regulations might lead to changes in the ideological extremism of legislators, though it is not clear whether public funding would create more moderate or more extreme politics. One possibility is that providing candidates with large, relatively easy-to-access grants may allow ideologically extreme candidates to win elections where they may have had difficulty attracting financial support otherwise. If extreme candidates are seen as less likely to win—which is a reasonable judgment if their ideal point is located relatively far from the median voter in a district—donors should be less likely to "invest" in their candidacies (Francia *et al.* 2005). Indeed, there is some evidence that more extreme candidates face a harder fundraising path. McCarty *et al.* (2006) find that ideologically extreme members of Congress have somewhat more difficulty raising money than do their more moderate colleagues. Likewise, political action committees (PACs) tend to donate to more moderate candidates, and sometimes even donate to candidates from both parties (Bonica 2012, McCarty and Poole 1998). Removing the "market forces" affecting contribution decisions in a private donor system may therefore even the playing field for ideologically extreme candidates who would not otherwise have attracted the donations of investment-minded contributors. If this is the case, Clean Elections might facilitate the campaigns of more extreme candidates, who would use the program to circumvent the market that would impede their initial election to the legislature by denying them sufficient funds from donors. If such candidates are

3

indeed using Clean Elections to win seats, then public funding may lead to a more radical and/or polarized legislature.

It is also possible that removing private donors from the system may *moderate* the legislative climate. For instance, Heberlig *et al.* (2006) find that fundraising has become increasingly important in the selection of legislative leaders in Congress, which has given an advantage to more ideologically extreme members. That is, while congressional leaders may once have been valued for their ability to shepherd legislation through Congress, they are increasingly being evaluated for their ability to raise funds and transfer them to candidates facing difficult electoral environments. Moreover, frequent individual donors tend to be ideologically extreme (Francia *et al.* 2005, Bafumi and Herron 2010), and tend to give to more extreme candidates, even at the expense of electability (Stone and Simas 2010, Ensley 2009, Bonica 2012; but see: Malbin 2013). It follows then that the typical private donation-driven campaign finance environment in the United States might lead to more ideologically extreme legislators as candidates feel they must make good on policy commitments to donors with relatively extreme views.[3] Both Baron's (1994) and Ashworth's (2006) models predict that the introduction of public campaign financing should reduce candidates' dependence on ideological extremists, thereby attenuating the temptation of the former to cater to extreme donors upon their election. As such, campaign finance reforms that reduce the role of individual donors (and large donors in particular)—such as the Clean Elections programs in Arizona and Maine—might reasonably be expected to diminish legislative extremism and/or polarization.

Yet neither Arizona nor Maine has been immune from polarized politics of late, and both states have yielded ample anecdotal evidence in support of a more extreme political environment

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[3] See: Campaign Finance Institute. "Campaign Funding Sources for House and Senate Candidates, 1984-2012." Available at: http://www.cfinst.org/pdf/vital/VitalStats_t8.pdf

since the implementation of Clean Elections. Arizona in particular has recently found itself defending contentious policies. Perhaps nothing typifies Arizona's politics better than the case of its controversial immigration law, Senate Bill 1070, which at the time of its passage in 2010 was the most comprehensive and stringent state policy toward illegal immigration. The law attracted international attention, caused many groups to boycott the state's convention facilities, and anecdotal evidence suggests that it compelled thousands of Hispanic families to leave the state in the wake of its passage (Riccardi 2010). The combative atmosphere surrounding the policy eventually led in part to the successful recall of its sponsor, State Senator Russell Pearce (R-Mesa).

Though not all have attracted national attention, similarly contentious bills have been the norm in the state in recent years. For instance, since 2008 the legislature has passed bills requiring presidential candidates to produce a birth certificate in order to gain access to the state's ballot, banning ethnic studies classes in public schools, legalizing the carrying of concealed, unpermitted firearms, and allowing Arizona businesses to deny service to LGBTQ customers on religious grounds. The last of these, passed in 2014, was vetoed by Governor Jan Brewer after a wave of national media attention and subsequent protest. Nonetheless, these events have not escaped the eye of political observers. Jon Stewart has labeled the state "the meth lab of democracy" (Huffington Post 2011), and an online search reveals numerous articles sharing the same dubious title question: "What's the matter with Arizona?"

Even in Maine, long a bastion of moderate politics, there are signs of extreme politics of late. In 2010, the Tea Party faction of the Republican Party successfully pushed radical changes in the party platform, including demands for an inquiry into the "global warming myth" and a full audit of the United States Federal Reserve (Richardson 2012). Tea Party-backed Governor

Paul LePage also took several controversial steps during his term, including removing a mural depicting the history of Maine laborers from the state offices of the Maine Department of Labor. LePage also moved to rename state conference rooms that commemorated historical labor leaders, and once told the NAACP to "kiss (his) butt" (Cover 2011). Moreover, U.S. Senator Olympia Snowe announced in early 2012 that she would not seek reelection. The moderate Republican publicly cited concerns about increased polarization in the Senate, but no doubt sensed hostility among the electorate as well, as evidenced by the chorus of boos she received at a Republican meeting in Bangor in early 2012 from party members disappointed in her willingness to work with Democrats (Miller 2012).

Evidence of a polarized political environment in the two states notwithstanding, the potential for Clean Elections to attenuate legislator extremism bears further investigation, as there is ample evidence that Clean Elections imparts substantial changes on legislative elections in other areas. For instance, candidates who accept Clean Elections subsidies appear to recognize that doing so affords them more flexibility in the manner in which they use their time (Miller 2011b; 2014). This is presumably because Clean Elections candidates spend less time fundraising (Francia and Herrnson 2003) and more time interacting with voters relative to those who fund their campaigns solely with private funds (Miller 2011a; 2014). Furthermore, more people vote in districts where at least one Clean Elections candidate ran, and the subsidies appear to "manufacture" quality candidates who might otherwise lack the attributes or experience to run viable campaigns (Miller 2014). Finally, prior to a 2011 Supreme Court decision that banned "matching funds" distributed to Clean Elections candidates when their privately funded opponents exceeded the subsidy amount, Miller (2008) found pervasive gaming by privately

6

funded candidates, who delayed their expenditures to prohibit their clean-funded opponents from receiving matching funds in time to use them.

The apparent changes in the electoral environment notwithstanding, extant studies of public funding and polarization offer mixed results. For instance, Barber (2014) demonstrates that limitations on PAC and party spending are related to increasing legislative polarization, but finds no relationship between public funding of elections and the ideological behavior of legislators. However, consistent with the market-oriented perspective on elections described above, Hall (2015) finds some evidence that public funding actually leads to *more* polarized legislators, presumably because the public intervention in the market provides funding for those who would be otherwise unable to obtain it.

The literature thus offers a mixed bag of expectations about the possible impact of public financing of campaigns on legislative extremism. Some research on the behavior of donors suggests that they are ideologically extreme, and thus by cutting private financing out of the equation, we should expect more moderate politics. Many journalists and political reformers tend to agree with this view. Other findings suggest that public financing may, in fact, lead to more polarized politics, as it opens up the political system to an array of ideologically-motivated candidates who previously would not have been able to amass sufficient funds to run. This is no trivial matter; a great deal of political journalism and scholarship is currently focused on reducing both party polarization and the role of money in American politics. If these two trends are linked, and if increased campaign fundraising is, in fact, a cause of polarization, then perhaps two problems can be solved with one policy: constraining spending could reduce legislative extremism and/or polarization. Conversely, if they are negatively correlated, then many of these

reform efforts may be misguided, with restrictions on spending actually accelerating polarization. And yet it may well be that there is no clear relationship here at all.

If Clean Elections funding is affecting the extremism of state legislators in Arizona and/or Maine by allowing more extreme candidates to control funds that they would not have been able to raise in the private marketplace, then we would expect to observe more extreme ideal points from legislators who used Clean Elections funding in their first successful election. The underlying intuition in this scenario is that market forces in a system featuring wholly private contributions serve a gate-keeping function that keep extreme candidates out of financial contention; since they are deemed less likely to win, they are less likely to attract crucial support from PACs, party organizations, and investment-minded individuals. Such candidates might realize that the least costly mechanism by which to raise sufficient funds to get elected is to accept Clean Elections subsidies. While (as incumbents seeking reelection) they may later opt out of the program, we believe it is appropriate to focus on legislators' funding status upon their initial entry to the legislature, as it reflects the strategic considerations that they made before they would benefit from the advantages of incumbency. In the next section, we describe the data we collected and the methods we used to assess whether public funding affected legislative extremism.

Data and Method

As noted, we examine the states of Maine and Arizona, both of which adopted public financing for state legislative campaigns in time for the 2000 election. These "clean" campaign systems were quickly embraced by many candidates of both parties, allowing us to examine the voting behavior of a broad range of clean-funded and traditionally-funded legislative candidates once they achieved office. We therefore collected final roll call floor votes for all members of the

lower legislative chambers in Maine (1998-2010) and Arizona (1997-2010), covering all

legislative sessions following elections in which Clean Elections funding was an option in each

state (2000-2010).[4] We used these roll call votes to calculate legislator ideal points using the

DW-NOMINATE software program (Poole and Rosenthal 1997). The sessions range in length

from 193 votes in Arizona in 2000 to 718 votes in Maine in 1999 – more than enough to

calculate meaningful ideal points. DW-NOMINATE ideal points theoretically range from -1 (the

most liberal possible position) to +1 (the most conservative possible position); values closer to

each pole reflect more ideologically extreme legislators. Thus, the dependent variable is standard

across states.

We model the ideal points of individual legislators using random-effects regression

models with fixed effects for biannual legislative periods, and panel-corrected standard errors

(with observations from each legislator serving as a panel). The independent variable of interest

in all models is a dichotomous indicator of whether the legislator was "clean from the start,"

equaling one if the legislator entered the chamber via public financing and zero if he/she utilized

traditional funding to gain office. Notably, those who were already in office via traditional means

but later utilized clean funding in a reelection campaign are not coded as "clean" in this

specification, and those who enter via clean funding but later use traditional funding retain their

clean status. This variable is therefore coded consistently with the hypothesis that Clean

Elections helps more ideologically extreme candidates *to enter the legislature.* Of 2,121

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[4] Arizona bills were copied directly from the electronic records at azleg.gov. For Arizona, these roll call vote sets are complete from 2001 to 2003; from 2004 to 2010, we were only able to collect roll call votes on passed bills. However, given majority agenda control in the chamber, only about 5 to 10 bills typically fail in a legislative session. Arizona House rules require three votes on any given piece of legislation; our dataset consists only of the third (final) votes on bills. Bills in both states were divided by year for each biennial session.

legislators in our sample from sessions following elections in which Clean Elections was available in the two states, 1,047 (49.36%) used public funding to enter the legislature.[5]

To account for the possibility that ideological extremism is dependent upon experience in the legislative assembly, we include in the models the number of two-year terms that the member has served. We also account for political conditions in the legislator's district that may affect ideological extremism. Specifically, legislators who come from "safe" districts in which they can be confident of receiving a large share of the general election vote might be expected to locate nearer the outer bounds of the ideological spectrum. Furthermore, members who have reason to believe that they may face a primary challenge might be more extreme in order to portray themselves as better carriers of the party banner. Finally, there is an abundance of evidence supporting the existence of ideological differences between men and women in legislatures, at least on some dimensions (e.g. Poggione 2004). As such, we include in all models the member's percentage of the two-party general election vote in the most recent election, as well as a dummy variable coded 1 if the member faced a primary challenge in the most recent election cycle, and another dummy variable coded 1 if the legislator was a woman.[6] All models also include fixed effects for each biannual legislative period.

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[5] The decision to accept public funding remained fairly constant for most legislators, as more than 82% remained in the same funding condition for the duration of their careers.

[6] There are other legislator traits that might reasonably be expected to affect the member's ideological positioning. Being a member of leadership is one such attribute. We found historical information about leadership positions in Arizona, and included them in an alternate specification available upon request. We were unable to obtain historic leadership information for the Maine legislature. However, including the leadership variable changes nothing about the findings we report for Arizona in Tables 1 or A1 below. Given that Maine employs only 5 leadership positions in its 151 member House, we do not expect variance sufficient for a leadership variable to add much to the model, even if that information was available. We have similar expectations with regard to race, though for different reasons in each state. In Maine, there is hardly any racial variation among legislators to begin with. In Arizona, "non-white" legislators are overwhelmingly Latino/a, which is a notoriously difficult category to define. Fortunately for us however, of 22 Arizona legislators in our sample with last names of Hispanic origin, 21 (95%) were Democrats. As such, we expect that the party dummy variable will account for differences in extremism stemming from race, and we therefore include neither race nor leadership in the models described below.

Results

 We begin with a note on the roll call voting patterns in both states. The ideal point generation process strongly suggested that both state legislatures are functionally one-dimensional. In some legislatures and time periods, while the first dimension often captures economic issues or the broader liberal-conservative spectrum, other roll call voting patterns may be best described by a second dimension. Votes on civil rights largely comprised the second dimension in the mid-20th century Congress (Poole and Rosenthal 1997), and early 20th century California saw a second dimension defined by urban-rural splits and even rival lobbyist groups (Masket 2009). There does not appear to be any such structure in the Maine and Arizona legislatures.

 In Maine, the aggregate proportion reduction in error (APRE) of a one-dimension model is .587, with 86.1% of votes correctly classified. The APRE of the two-dimension model is .618, with 87.1% correctly classified. Over in Arizona, the APRE of the one-dimension model is .478, with 88.6% of votes correctly classified, while the two-dimensional APRE is .533, with 89.8% correctly classified. In both states, adding a second dimension improves our ability to classify votes by just about one percent. This is roughly the same as the highly one-dimensional modern U.S. Congress. Given the lack of structure to the second dimension in both states, we focus our analysis on just first dimension estimates.

 We next consider the first dimension ideal points of legislators in both Arizona and Maine through time, by both party and public funding status. Again, we define a member's public funding status by whether he/she accepted Clean Elections subsidies in his/her first election, in-line with the claim that extreme candidates might use public funding to help win the

11

initial election. Accordingly, Figure 1 depicts the median ideal points for candidates of both

parties, calculated for each two-year legislative session. Readers will note that given different

typical ideological positions (especially among Republicans) for legislators in the two states, the

panes of Figure 1 employ different vertical scales; a reference line is therefore included at the

mid-point of the ideological spectrum.

Figure 1: Median Ideal Points, By Party and Year
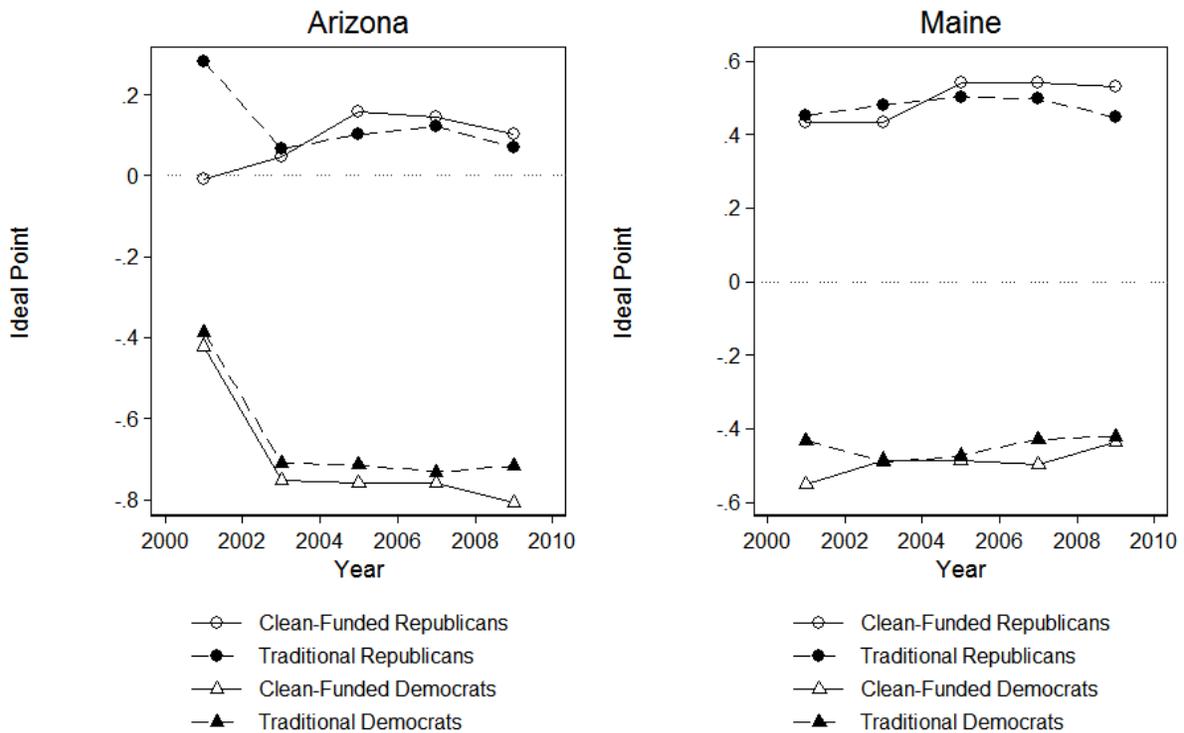
Several trends in Figure 1 are worth mentioning. First, given the scaling of the dependent

variable, median ideal points for Republicans—regardless of their public funding status—tend to

take on positive values indicating more politically conservative positions, while ideal points for

Democratic members are negatively signed, indicating more liberal positions. This is fairly

unsurprising, as is the fact that in both Arizona (left pane) and Maine (right pane) there is

considerable ideological distance between members of the two parties, on average. Finally, with

the exception of Arizona Democrats, the parties do not seem to have drifted closer to the

12

ideological poles as the decade progressed.[7] In other words, there is little evidence of a bipartisan

polarization trend in either state occurring during the 2000s. This trend is in-line with Shor and

McCarty who, using a different roll call collection method than ours, reached substantively the

same conclusion (Shor 2014).

Figure 1 also yields little in the way of an apparent, meaningful effect of public funding

status on ideological extremism. More "extreme" ideal points for Democrats would be closer to

the bottom of the scale, and more extreme Republicans would appear nearer the top. In Arizona

(left pane), the median ideal points of Democratic members who accepted public funding were

less than those of their traditionally financed colleagues in every legislative session between

2001 and 2009; however, the substantive difference is quite small, with a relatively larger gap

appearing between the two groups only in 2009. A quite different pattern emerges for Arizona

Republicans, as traditionally funded Republican legislators appear to have been much more

extreme than their clean-funded counterparts in the term beginning in 2001. Thereafter, publicly

funded Republicans look to be slightly more extreme, but as with Democrats, the distance

between median ideal points for the two groups is quite small.

Similarly, there is no clear, consistent pattern in Maine (right pane) that would indicate a

significant difference in extremism between publicly and privately financed candidates in Figure

1. Beginning in 2005, clean-funded Maine Republicans appear to be slightly more extreme than

traditionally financed Republican legislators, but as in Arizona, the ideological distance between

the two groups is relatively large in only one two year legislative cycle: the one that began in

2009. In contrast, clean-funded Maine Democrats began the decade as more extreme than their

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[7] The apparent trend toward extremism in Figure 1 among Arizona Democrats between 2001 and 2003 does not appear to be an anomalous relic of a moderate party caucus in 2001. Indeed, median ideal points for Arizona Democrats in 1997 and 1999 (before the availability of Clean Elections funding) were -.22 and -.401, respectively.

privately financed counterparts, but the median ideal points between the two groups are strikingly similar for the remainder of the decade. In short, an examination of the median ideal points through time yields little confidence that public funding has led to either more extreme or more moderate legislative bodies.

Figure 2: Ideal Points, by Party and Public Funding Status
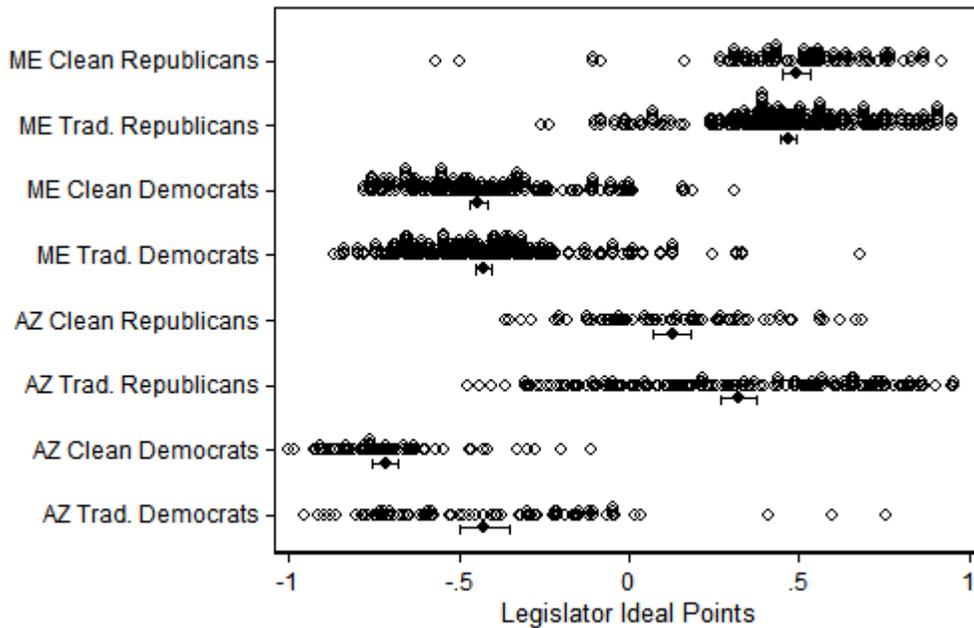
Point estimates and whiskers depict the mean and 95% confidence intervals for each grouping. Figure 2 depicts ideal points pooled from all sessions by legislators' party and public funding status; point estimates and whiskers depict the mean and 95% confidence intervals for each grouping. Figure 2 does suggest some differences in ideological position between clean-funded and traditionally funded legislators of both parties in Arizona, but those differences do not point to uniform effects of public funding on ideological extremism. Specifically, while clean-funded Democrats in Arizona appear to be more extreme than their privately financed counterparts, the opposite is true of Arizona Republicans: Figure 2 suggests that members of the Republican caucus who ran with public funding are significantly more *moderate* than their traditionally-funded colleagues.

14

In contrast, there is practically no difference in ideological position between clean-funded and traditionally-funded legislators in Maine. Ideal points for Maine legislators of both parties are closely grouped, and their distribution is quite similar for legislators in each funding status, within each party. Indeed, the mean ideal point for clean-funded Maine Republicans is nearly identical to that of their traditionally financed colleagues, and the same can be said for Democrats. Moreover, even with relatively narrow confidence intervals, there is considerable overlap between the two groups for both party caucuses in Maine. Since Figure 2 is suggestive of more liberal (relative to their party caucuses) candidates accepting public funding in each of Arizona's parties—and yields no evidence of differences in Maine—only for Arizona Democrats does Figure 2 support the hypothesis of Clean Elections leading to more extreme legislators.

That said, it is possible that any presence (or absence) of a relationship between public funding and ideological positioning in Figure 2 is masked by confounding variables. As such, we now turn to the results of the models described above, which hold relevant covariates constant. Table 1 contains the coefficients and panel-corrected standard errors from our regression analyses which model DW-NOMINATE ideal points separately for each party caucus, with biannual legislature fixed effects. To reiterate, given the scaling of the ideal points, more "extreme" Republicans would demonstrate higher ideal points, while the opposite would be true of Democrats. If extreme candidates are using Clean Elections funding to enter the legislature, our expectation for the "Clean from Start" indicator coefficient would therefore be positive for Republicans and negative for Democrats.

Table 1: Random Effects Regression Coefficients and Panel-Corrected Standard Errors

	(1) Arizona Democrats	(2) Maine Democrats	(3) Arizona Republicans	(4) Maine Republicans
Dummy: Clean in First Election	-0.063	0.066	0.106	-0.009
	(0.042)	(0.069)	(0.059)	(0.025)
Term	0.033*	0.002	0.026*	0.002
	(0.010)	(0.005)	(0.009)	(0.003)
Lagged Vote Percentage	-0.125	-0.006	-0.038	-0.037
	(0.143)	(0.018)	(0.080)	(0.044)
Dummy: Primary Challenge in Prev. Election	-0.016	-0.002	-0.002	-0.002
	(0.018)	(0.004)	(0.014)	(0.004)
Dummy: Woman Legislator	0.057	-0.051*	-0.016	-0.004
	(0.066)	(0.024)	(0.073)	(0.046)
Constant	-0.473*	-0.434*	0.177*	0.483*
	(0.080)	(0.043)	(0.055)	(0.028)
Observations	116	433	180	321
Number of Individual Legislators	64	223	86	160
Root Mean Sq. Error	0.0690	0.0407	0.0642	0.0422

Panel-corrected standard errors in parentheses. All models employ legislature fixed effects.
* $p<0.05$

However, our models fail to indicate a uniform pattern. Moreover, in no case do they demonstrate either a substantively large or statistically significant relationship between entering the legislature with "clean" funding and ideological extremism. For both Arizona Democrats (Model 1) and Republicans (Model 3), the sign of the coefficient is consistent with the notion of publicly funded legislators possessing a more extreme ideological position, but fails to achieve

16

statistical significance ($p=.131$ and $p=.073$, respectively). In models of legislators from both

parties in Maine, the coefficient for public funding status is signed incorrectly, and is statistically

significant in neither case. Given the distribution of ideal points depicted in Figure 2 above, the

failure of the Maine models (Models 2 and 4) to detect a significant relationship should not be

particularly surprising.

Table 2: Means and 90% Confidence Intervals for Simulated "Clean From Start"
Regression Coefficients

Group	Lower Bound	Mean	Upper Bound
Arizona Democrats	-.0999	-.0963	-.0926
Maine Democrats	-.0397	-.0376	-.0354
Arizona Republicans	.0172	.0220	.0268
Maine Republicans	.0117	.0140	.0163

Following Rainey (2014), we also conducted Monte Carlo simulations in which we drew

a sample of 1,000 coefficients on the "clean from start" treatment indicator using regression

models of the same specification as those contained in Table 1.[8] We then calculated 90%

confidence intervals about the means of the resulting sample; means and bounds from that

exercise are contained in Table 2. In all four cases, the mean parameters resulting from the

simulation are signed consistently with the expectation of more extreme legislators entering the

lower chamber as publicly funded candidates, and none of the confidence intervals contain zero,

which indicates what Rainey (2014) characterizes as a negligible effect.

However, we believe that restraint is warranted before concluding that accepting public

funding leads to more extreme legislators, as in all four cases, the confidence intervals do not

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[8] We ran these simulations with the Clarify package for Stata (Tomz,Wittenberg, and King 2003) , which does not
presently support the random effects models of the sort we report in Table 1. As such, the models used to derive
the confidence intervals in Table 2 were OLS models with fixed effects for legislative period.

17

contain values that would reflect *meaningful* effects of accepting public election funding on legislator extremism, as was our hypothesis. For both Democrats and Republicans in Maine, as well as for Arizona Republicans, the entire range of the confidence interval is quite close to zero. The confidence intervals yield larger (in absolute terms) apparent effects for Arizona Democrats, but even the value of the lower bound of the confidence interval (-.099) marks a very small shift in the ideal point—less than 5% of the total range of the dependent variable, and less than one half of one standard deviation of the ideal points for Arizona Democrats. Substantively speaking, the effects observed in Table 2 do not support the idea of a significantly more extreme legislature resulting from Clean Elections funding.

In total then, the ideal points we calculated from legislator roll-call votes hardly offer overwhelming support for the notion of unusually extreme candidates using public funding to circumvent the challenges they would face in a privately financed environment. These substantive conclusions also hold when we examine "extremism" as the distance between a member and his/her party's median member in a given session, as well as when we conduct the analysis using appropriate specifications of the ideal points described in Shor and McCarty (2011). These results can be obtained from the authors by request. Our findings are also robust to alternate specifications that include a different coding of the independent variable, reflecting whether a legislator accepted Clean Elections funds in the election immediately preceding the legislature in which the member cast roll-call votes (as opposed to merely entering the legislature with public funding). The results of these models are contained in Appendix Table A1.

Discussion

We find little support for the notion that clean-funded legislators are significantly more ideologically extreme than traditionally financed candidates. Our models do not return

18

statistically significant effects of entering the legislature with public funding, and neither the small coefficients from the models nor the confidence intervals derived from a simulated sample of coefficients depicts a relationship that is substantively meaningful. Our analysis should provide some comfort to reformers who worry that public funding might contribute to legislative extremism and/or polarization. In general, party polarization is driven by massive historical forces – the realignment of the South, the sorting of voters into like-minded states and districts, the strategic allocation of resources by ideological party insiders, etc. – and any impact by campaign spending is likely to only be marginal at most.

There may well be other legitimate reasons for which a polity may wish to employ clean funding in its elections. For instance, members of Congress spend a great deal of time on fundraising activities, and new members are advised to devote at least four hours per day raising money for their reelection efforts (Jan 2013). Even if these activities do not end up distorting legislators' voting behavior or ideological dispositions, they surely influence the types of people with whom members end up speaking, and crowd out other activities that may be seen as more useful. As noted above, recent research by Miller (2014) finds that state legislative candidates who benefit from public campaign funding use the time they would have spent fundraising on practical activities like meeting with voters in their districts. Substantial reforms in campaign finance laws could certainly incentivize different behaviors and lead to either positive or negative changes in our campaign systems, but we find little reason to believe that they will have an impact on the trend toward either more extreme politics or greater polarization.

The analysis of ideological extremism we have provided in this paper is somewhat limited in that we only have roll call votes, and thus ideal points, for those who actually served in the legislature. We cannot determine the ideological leanings of those who lost in the general

19

election, or who challenged their own incumbents in the primaries. New methods exist to calculate ideal points from private campaign donation patterns (Bonica 2013; 2014) and Twitter follows (King et al. 2011), but those are of little help in this analysis since we examine public funding and there is thus far relatively little Twitter activity among state legislative candidates (and none for early in our dataset). For the moment, we are limited to those who have actually won both the primary and the general election, and data from those individuals are not supportive of the hypothesis that full public funding in either Arizona or Maine leads to more extreme legislative politics.

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Appendix

Table A1: Random Effects Regression Coefficients and Panel-Corrected Standard Errors

	(5)	(6)	(7)	(8)
	Arizona	Maine	Arizona	Maine
	Democrats	Democrats	Republicans	Republicans
Dummy: Clean in Last Election	-0.037	-0.031	0.032	-0.013
	(0.046)	(0.023)	(0.022)	(0.007)
Term	0.034*	-0.002	0.021*	0.001
	(0.010)	(0.002)	(0.008)	(0.003)
Lagged Vote Percentage	-0.155	-0.021	-0.013	-0.039
	(0.154)	(0.025)	(0.085)	(0.045)
Dummy: Primary Challenge in Prev. Election	-0.013	-0.003	-0.002	-0.001
	(0.019)	(0.005)	(0.015)	(0.004)
Dummy: Woman Legislator	0.059	-0.045*	-0.004	-0.004
	(0.067)	(0.022)	(0.073)	(0.047)
Constant	-0.481*	-0.382*	0.193*	0.483*
	(0.090)	(0.024)	(0.054)	(0.029)
Observations	116	433	180	321
Number of Individual Legislators	64	223	86	160
Root Mean Sq. Error	0.0689	0.0423	0.0656	0.0427

Panel-corrected standard errors in parentheses. All models employ legislature fixed effects.
* $p<0.05$