# Advocates For Hire: How Government Contracting Shapes Politics

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#### Abstract

Many public services in the U.S. are administered through non-state actors, many of which are nonprofits with broad social missions. Some scholars show that contracting these organizations can compromise their broader goals and political activities, while others find that such arrangements empower the organizations to engage in advocacy and influence policy. We argue that not only can contracting strengthen nonprofits' capacity to engage in politics and advance their missions, but it can mobilize political activity among those working for and engaging with the nonprofit. We use the case of Teach For America (TFA) and an instrumental variable approach that leverages plausibly exogenous variation in the timing of TFA's arrival in states to show that contracting TFA is related with the arrival of new education reform advocacy groups spearheaded by TFA alumni. This, in addition to TFA's direct efforts, leads to the passage of reform policies - especially charter school laws.

Nonprofit organizations in the United States are commonly seen as separate and independent from the state, leading to their categorization as part of "the third sector" or "the voluntary sector." Yet, nonprofits in the U.S. derive much of their budgets from government dollars, by some estimates almost 40% (Salamon 2012). For many nonprofits, this is the result of contracting relationships, where the government hires the organizations to carry out public services on its behalf. The growth of government contracting has been one of the major post-WWII transformations of the state, fueled by the growth of federal government programs (Grønbjerg 2001). Nonprofits currently deliver the majority of state-funded direct social services to citizens (Salamon 2003, Marwell 2004), and at the federal level, there are more than twice as many contract and grant employees than federal employees (Light 2017). Many of the most well-known federal welfare programs, including the Supplemental Nutrition Assistance Program (SNAP), Medicare, and Medicaid, contract out the delivery of health or food benefits to nonprofit and for-profit private providers (Milward & Provan 2000). Scholars have used many names to characterize this phenomenon, calling it "delegated governance" (Morgan & Campbell 2011), "third-party government" (Salamon 1981, 1986), "government by proxy" (Kettl 1988), and "the hollow state" (Milward 1994, 1996).

There is often an inherent tension in nonprofits' role as part of civil society and as agents of the government. While there are a wide range of nonprofit types, 501(c)(3) charitable organizations, which we focus on in this paper, have altruistic, and oftentimes broad and ambitious, social missions. Carrying out their contracts may be only one small part of their broader pursuit. For example, a homeless shelter may want to end homelessness, but the government contracts it to run a particular shelter, not to advocate to end homelessness broadly. Receiving a government contract might even necessitate that the organization shift away from its broader mission so it can faithfully fulfill contractual duties; too much time spent on substantive advocacy may be detrimental to the winning of future contracts if it worsens performance or is perceived as too politicized. In the words of Smith & Lipsky (1993: 149), these kinds of nonprofits need resources, but "are influenced by a strong sense

of purpose and commitment. Thus nonprofit organizations are torn between organizational maintenance and pursuit of their purposive objectives." Some have shown that this tension between a nonprofit's broader goals and its government patronage leads nonprofits to prioritize organizational maintenance at the expense of political advocacy for their purposive missions (Harris 2001).

However, this may not always be the case. Not all nonprofits have larger goals beyond serving their clients. For such organizations, there wouldn't be such tension. Or another possibility is that nonprofits' broader goals and advocacy efforts are unaffected by or even enhanced by their contractual obligations to the government, removing this tension and enabling additional advocacy. Some work finds that contracting can increase advocacy (Chavesc, Stephens & Galaskiewicz 2004), though this advocacy may be for the continuation and expansion of the contracted program, not for substantive policy change (Mosley 2012). Can contracting also allow nonprofits to pursue substantive policies consistent with their purposive objectives?

In this paper, we argue that in some cases contracting indeed can help nonprofits to achieve policies consistent with their broader objectives, via both previously acknowledged mechanisms, like their own direct advocacy, as well as through a little-explored mechanism: the socialization and mobilization of nonprofit participants and workers advocating on their own. We borrow the term "advocate-provider nonprofits" from Fyall (2017), and define it as nonprofits engaged in government contracting that also have broad social goals, in contrast to contracted nonprofits that focus only on public service delivery without broader social change missions. We argue that contracting advocate-provider nonprofits can spur the mobilization of nonprofit workers. This mobilization, in addition to the advocate-providers' direct advocacy, can result in changes in policy consistent with the nonprofit's broad social goals.

We use the case of Teach For America (TFA) to illustrate and test these relationships. With a goal to create a movement to fight for educational equity but, more immediately, contracted to put recent college grads in public school classrooms, TFA is a case of an advocate-provider nonprofit. We use a novel dataset of all 50 states spanning 1990 to 2017. We leverage the gradual introduction of TFA on different geographies to examine how contracting out to this nonprofit strengthens the organization's advocacy, mobilizes its teachers, and leads to the accomplishment of policies consistent with the organization's broader goal to end educational inequity. Specifically, we use state class size laws as an exogenous instrument for contracting with TFA, and we find that TFA encourages the passage of charter laws. TFA is also related to teacher quality reforms and private school choice (such as tax credits or vouchers), although the relationship is weaker. Contracting with TFA has these effects by enhancing TFA's own direct efforts as well as by leading to new advocacy groups populated and founded by TFA alumni.

#### Contracted Public Service Delivery and Policy Feedback

There are two reasons for advocate-provider nonprofits to contract with governments. First, financial resources are critical for nonprofits' organizational maintenance; they cannot rely on regular dues from members, as can other types of interest groups like labor unions or business associations (Finger & Hartney 2019). For this reason, these organizations rely on patrons, often foundations. Government contracting, however, is another major form of funding for these organizations (Walker 1983). Second, it may be that they consider influencing the way public services are delivered to be an integral part of their mission. For example, TFA's aspiration that "every child has an equal opportunity to learn, grow, influence, and lead," requires changing public schools and might incentivize getting involved in public schools directly via contracting. As much as a third of all nonprofit funding comes from government sources (Blackwood, Roeger & Pettijohn 2012), and these relationships are indispensable to nonprofit survival and mission delivery (Smith & Lipsky 1993), particularly for nonprofit advocacy groups (Walker 1983).

Scholars have long worried that nonprofit dependence on government funds could com-

promise their special character as independent entities with broad social missions. According to Smith & Lipsky (1993: 12),

Nonprofit organizations represent different values from those held by government. They are free to take action without giving thought to the needs of the entire society or being under constraints to taxpayer preferences... They can elicit voluntary contributions and inspire citizen action in ways that are very difficult for government to emulate. We should inquire whether the interprenetration of government and nonprofit agencies limits the capacity of society to respond effectively to a variety of social problems by restricting the autonomy of private agencies.

The concern that nonprofit contracting could compromise nonprofits' missions and political activities has been born out in some studies (Wolch 1990). Contracting may simply change the character and priorities of nonprofits, making them more bureaucratic, less autonomous, and moving them away from their mission and advocacy (Salamon 1995).

It is not clear, however, that contracting always involves a tradeoff between a loss of agency or a loss of funding. Indeed, contracting arrangements could encourage some non-profits to pursue their missions more strongly, especially if they align with policymaker goals. These two very different possibilities can be seen in the case of women's health organizations. Conservative politicians have long used Planned Parenthood's reliance on federal dollars as a way to try to weaken it. Planned Parenthood relies in large part on federal Medicaid and Title X dollars to provide women's health services. The Trump Administration changed Title X rules in 2019 so that Planned Parenthood could not reasonably keep receiving the funds, thereby depriving a political foe of resources. This is consistent with contracting involving a tradeoff between nonprofits receiving funds and delivering on their missions. In contrast, the federal government expanded Title X funding for crisis pregnancy centers, which discourage women from getting abortions and seek to put Planned Parenthood "out of business" (Smith 2015). In this example, there is no such tradeoff; the advocate-providers stay true to their mission and their impact is amplified, provided they are largely aligned with politicians.

We theorize that contracting may under some circumstances better enable the accom-

plishment of nonprofits' missions and the passage of policies consistent with them. This should occur where a contracted nonprofit has a broad, clear goal independent of the service it provides. This could happen through two avenues - the strengthening the nonprofit's capability to engage in direct advocacy and the effect of contracting on nonprofit workers' political activities.

The first avenue builds on what others have written: contracting encourages advocate-providers to directly advocate. Scholars have found that contracting incentivizes advocate-providers to get involved in politics to influence their contracting arrangements. Mosley (2012), for example, finds that contracts lead to more political engagement of homeless services providers, though some have found that advocate-providers are no more active than nonprofits that don't receive government funds (Leech 2006). Fyall (2017) has argued that advocate-provider nonprofits should be conceptualized as interest groups seeking to influence policy just like other organized interests. Consistent with this idea, others have found that advocate-providers can influence the funding for or standards of service delivery in which they are engaged (Mason & Fiocco 2016).

Additionally, contracting might also enable nonprofits to shape broader policy. Advocate-providers may use their access to policymakers to push for their broader missions. Berry & Arons (2005: 122) write that effective, long-term advocate-providers that have deep experience working with various government agencies gain "the ear of government." The expertise afforded the organization from working on the ground should make it a stronger voice for related policy solutions (Fyall 2017). Additionally, rather than requiring a reallocation of resources away from advocacy to ensure the contracts are satisfied, contracting may make advocacy easier to carry out by ensuring organizational maintenance and freeing up other funds. Moreover, as Chavesc, Stephens & Galaskiewicz (2004) point out, because government comes to rely on the service provider in many cases, it may be less likely to object to political activity. In sum, the first mechanism through which we anticipate that contracting leads to new policy is through increasing the advocate-providers' direct political advocacy

for policies consistent with their goals.<sup>1</sup>

The second avenue and where we go beyond existing work is by highlighting that policy change could occur through the activation of advocate-provider nonprofit participants and employees. Fyall (2017: 134) points out that "nonprofit policy implementation facilitates advocacy action by identifying groups of actors with shared priorities." Indeed, receipt of government funds has been associated with action on the part of participants, like church congregations being encouraged to vote or make calls (Chavesc, Stephens & Galaskiewicz 2004). Similarly, parents of children in Head Start are mobilized by their participation in the program (Karch 2013). Advocate-providers engaged in contracting can bring together like-minded individuals committed to the organization's purposive objective, who might donate to campaigns, attend protests, or contact politicians. In the absence of working for or with the organization, this underlying willingness to engage in advocacy may never have materialized.

Moreover, by virtue of working for an advocate-provider, individual employees and participants may gain a better understanding of how to engage politically and organize on their own to advocate in related policy areas. Advocate-providers may even serve as socializers and connection-builders for them. This could enable those who might want to continue advocating after leaving the contracted organization to overcome the collective action problem and start new organizations. In the case of Head Start, parents and staff formed the National Head Start Association (NHSA), which advocates to protect the program nationally and in related areas, like child welfare and nutrition (Karch 2013).

Altogether, we expect that government contracting of advocate-provider nonprofits—nonprofits with broad missions distinct from their service work, such as TFA, Habitat for Humanity, or Planned Parenthood—would in some cases better equip the nonprofits to shape policy, both through their own direct efforts, and by enabling the socialization and mobi-

<sup>&</sup>lt;sup>1</sup>Nonprofits have restrictions on their political activities, but they can engage in lobbying if it is not a substantial portion of their activity, and they can do other things like engage in grassroots campaigns or testify in committee hearings.

lization of their participants and employees. For these reasons, we would be more likely to see advocate-provider nonprofits' policy goals enacted in geographies where they gain a foothold. Of course, other factors will shape whether policy changes in ways consistent with nonprofits' purposive goals, but, all else equal, if contracting strengthens the ability of advocate-provider nonprofits to accomplish their goals while mobilizing new actors, we might expect that an area where the government contracts with one versus an area without such a contract would be more likely to see the organization's preferred policies come to fruition.

#### Expectations for the Case of Teach For America

In order to examine whether and how receiving a government contract enables advocateprovider nonprofits to achieve policies consistent with their mission, the ideal experiment
would have such a nonprofit that exists in like political units but is contracted to provide
public services only in some units chosen at random. Then we could compare areas with the
contracted organization to those where the organization isn't contracted to test whether the
use of the nonprofit for public service delivery enables it to shape policy. Teach For America
(TFA) allows us to come close to this setup due to its gradual introduction in different
states and similar operation across geographies, derived from a highly centralized strategy.
Founded in 1989, TFA is a 501(c)(3) nonprofit which strives to end educational inequity.
To this end, it puts ambitious young people right out of college in low-income public school
classrooms for two years. The program has spread from five states in 1990 to 36 states today.
As of 2020, it had almost 62,000 alumni.<sup>2</sup>

A core component of how TFA strives for educational equity is through the service it provides: teachers in school districts. TFA "corps members," meaning the teachers it recruits, are hired only in states that have alternative certification policies that allow for the hiring of teachers outside of the usual education school route. Within those states, districts

 $<sup>^2 \</sup>mathrm{See}\ \mathtt{https://www.teachforamerica.org/life-as-an-alum/the-tfa-alumni-network.}$ 

can sign contracts with TFA committing to set aside a certain number of teacher positions to be filled by corps members. As part of the contract, districts provide "finder's fees" to TFA for recruiting each corps member. This ranges from \$3,000 to \$5,000, according to an analysis of contracts from five TFA regions (Brewer et al. 2016).<sup>3</sup> TFA teachers then become regular teachers, receiving salaries and benefits from the district. While the contracting is with the local school districts, TFA receives state and federal sources of funding as well, though the vast majority of TFA's revenue comes from private donations.

We contend that contracting advocate-provider nonprofits can better enable the organizations to advocate for policies consistent with their missions. What might this look like for TFA? We argue that contracting TFA could impact policy through the organization's efforts as well as through the actions of its alumni. As to TFA's direct advocacy, in states where TFA is present, the organization has lobbyists working at the state level. Figure 1 shows that as the organization has gained new contracts, it has increased its number of lobbyists, though the numbers shown likely represent the lower bound, since not all states disclose lobbying and 501(c)3s find ways other than lobbying to influence policymakers. For instance, a Missouri government relations and lobbying organization prepared "a strategy for TFA that included developing long-term legislative champions who would make it a priority every year to secure their line-item, educating the budget committee, and deploying an aggressive messaging campaign [...]" (Nexus 2020). TFA has engaged in advocacy in other ways as well, such as through the creation of a 501(c)(4) in 2007, which offers fellowships and programming to encourage advocacy among alumni. It also engages in government work itself, giving campaign contributions every year since at least 2012.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup>TFA refers to its locations as "regions." Regions can include one or multiple school districts in the same geographic area, though individual school districts have to agree to contract with TFA for the organization to place teachers. TFA currently operates in between 1 and 4 regions in each state where it has contracts. The size of individual regions varies greatly. While TFA does not currently list the number of corps members in each region on its website, we know from archived versions of the site that in the 2014-2015 school year, the largest region was New York with 790 corps members, while the smallest was Buffalo with 20.

<sup>4</sup>See Followthemoney.org for data on campaign contributions.

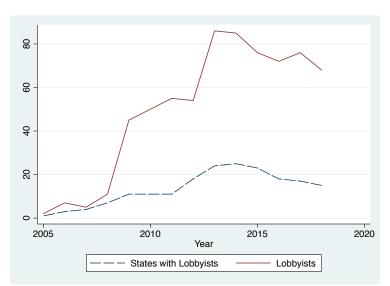


Figure 1: The Growth of TFA Lobbyists

Data from the National Institute on Money in Politics

There is also evidence that as TFA has spread, it has connected and mobilized its teachers to influence policy. For alumni interested in advocacy, TFA functions as a network-builder, bringing together idealistic young people, many of whom have ambitions beyond teaching, and providing them resources to facilitate government and advocacy work. Indeed, after their two-year commitment, many stay in their TFA region and take jobs as advocates or community organizers, pairing with other alumni. Some join other alumni to be organizers or advocates in other TFA regions. Many work for TFA itself. Some even become makers and implementers of policy as school board members, superintendents, or principals. Table 1, which comes from de-identified survey data shared with us by TFA, shows that over 1,000 alumni categorize their professions as government, politics, advocacy or community organizing (rows 1 and 3). While this is a small amount relative to all alumni, we know that some of the 3,702 alumni working for education nonprofits and philanthropy (row 2) work for organizations that engage in advocacy or policy work. Moreover, of the over 23,000 alumni working for school districts or charters, many are in leadership positions.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup>TFA alumni are more likely to be involved in policy or advocacy than their peers. When we compare the employment by occupation of college graduates over 25 years of age in the American Community Survey (U.S. Census Bureau N.d.), only 3% are employed in nonprofits overall, compared to about 9% of TFA alumni in either education nonprofits or advocacy.

Table 1: TFA Alumni Jobs

Job Category	Number with	Percent of All
	Occupation	Alumni
Advocacy or Community Organizing	308	0.66
Education Nonprofit or Philanthropy	3,702	7.95
Government or Politics	835	1.79
Works for Charter Network	999	2.15
Works for a School or District	22,357	48.02
Other	18,352	39.42
Total	46,553	100

Data from TFA's 2017 Alumni Survey

As a way to measure whether TFA mobilizes its corps members politically, we look to the presence of education reform groups. While the relationship between TFA and education reform groups has not been systematically studied, we know TFA alumni are the founders and senior staff at several reform advocacy organizations (Higgins et al. 2011, Kretchmar, Sondel & Ferrare 2014). We also know anecdotally and through alumni survey data that many TFA alumni found, lead, and work for education reform groups. Education reform advocacy groups founded by or at various points run by TFA alumni include Stand for Children, state chapters of Educators4Excellence, the now-defunct StudentsFirst, and various chapters of the education reform group 50CAN.

What policies would TFA and its alumni pursue? The organization does not take explicit stances on education policies, though it is widely considered a strong supporter of education reform, meaning it supports school choice (e.g., charter schools) and accountability (e.g., teacher evaluations). Indeed, while the term "education reform" does not appear much in current documents, it was explicit in earlier materials. Schneider (2011) shows that, since its inception, TFA has embraced a message of equity with pro-market efficiency, consistent with the education reform movement, and its advocacy on behalf of the charter school movement has been widely documented (Waldman 2019, Kretchmar 2014). It also has had employment

<sup>&</sup>lt;sup>6</sup>For example, a 2010-2015 business plan stated, "We may be pushed more strongly to take political stances ourselves as we become more visible player in the national education reform movement" (Teach For America 2011: 26).

relationships with several education reform advocacy groups.

Additionally, there is reason to believe that many alumni involved in advocacy or government support education reform policies, in line with TFA's reformist orientation. Several studies find that TFA alumni come to see poor teacher quality and leadership - not poverty or resources - as the most important causes of the achievement gap<sup>7</sup> (Brewer 2014, Dobbie & Fryer 2011). Alumni support better teacher quality and leadership, in addition to more accountability and flexibility as policy solutions (Smith 2005, Scott, Trujillo & Rivera 2016). Conn, Lovison & Mo (2020) find that TFA-ers are more likely to support standardized testing and to disagree that "teachers can only do so much to help low-income students succeed." These stances are in line with the standardized testing and teacher accountability policies that have been pursued by education reformers. However, the study also found that TFA alumni are less likely to say that high-quality charter schools and voucher programs should be expanded.<sup>8</sup> That said, we know that there are many TFA alumni in charters: almost 1000 alumni indicate they work for the charter sector on the alumni survey, and of those, 49% indicate that they are founders, executives, directors, or principals. TFA alumni have started many charter schools networks, like KIPP, Yes Prep, IDEA Public Schools, as well as many individual charter schools. They are also executives at charter networks and were important actors in the transformation of the New Orleans school district into an all charter district in the wake of Hurricane Katrina (Moe 2019).

Through its own direct lobbying and by spurring the mobilization of its corps members, we expect that the introduction of TFA will be associated with subsequent policy change in areas of education reform, such as policies promoting non-traditional schools (charters, vouchers) and teacher quality policies (changes to automatic tenure or the establishment of performance pay). TFA's policy effects may be stronger particularly where organizational

<sup>&</sup>lt;sup>7</sup>TFA itself carried out a 2005 survey of 1970 corps members. It found that a majority of in-service respondents ranked teacher quality as the top cause of the achievement gap (54.6%). The percentage ranking family and community factors was much lower.

<sup>&</sup>lt;sup>8</sup>There are also alumni who strongly disagree with education reform policies and have vocally condemned TFA, like the recent president of the LA teachers union, Alex Caputo-Pearl.

<sup>&</sup>lt;sup>9</sup>We have theorized that, additionally, the presence of TFA will also contribute to increasing TFA's direct

self-interest and mission coalesce, as is the case with charter schools, which constitute the placement of many TFA corps members and so support the expansion of TFA (Waldman 2019). Altogether, we develop the following three expectations:

The use of TFA to hire teachers will be positively related to the founding of state education reform advocacy groups.

There will be a positive relationship between the use of TFA to hire teachers and the passage of an array of education reform policies.

The relationship between TFA and policy outcomes will be partially mediated by the presence of education reform groups.

#### Data

To test the effects of contracting with TFA, we first code an indicator variable of Teach For America in a state using TFA documents from its website. The first year in the analysis is 1990, and it corresponds to the first year Teach For America corps members were placed in classrooms in any state, and we end our analysis in 2017.

The dependent variables we consider are, first, variables measuring the presence of education interest groups we hypothesize are related to the presence of TFA: we look at the creation or arrival of new education reform advocacy groups, including groups focused exclusively on school choice and of a more general kind. We are interested in testing whether contracting with TFA mobilizes TFA workers. As mentioned, while we cannot confirm all of the groups in our data that were founded by, run by or populated with TFA alumni, we know anecdotally and through TFA's survey data that TFA alumni have founded or have run some of the groups in our dataset. Thus our first outcome is the arrival of education reform advocacy groups, which we use as a proxy for TFA alumni political activity. A list

advocacy efforts. However, there is no clear data to test the influence of TFA on policy through this channel. 

10 Unfortunately, there is no central database of education reform groups, so we identified them manually. First, we identified them through their membership in the Policy Innovators in Education (PIE) Network, an organization that supports education reform groups. See https://pie-network.org/mission-vision/. We also included groups mentioned in Manna & Moffitt (2014), or groups separately identified by the authors. Finally, some were identified in personal communications with [NAME REDACTED FOR REVIEW].

of the organizations used is in Appendix Table A2.

Second, we look at dummy variables indicating the passage of policies associated with the education reform movement. These include charter school laws, private school choice programs (e.g., vouchers, tax credits, education savings accounts etc.), non-automatic teacher tenure (e.g., states do not automatically grant teacher tenure), and performance pay policies. While our charter law change variable captures the passage of the initial charter law as well as any subsequent changes, 11 as documented by the Education Commission of the States, 12 the private school choice program and performance pay policy variables are indicators for the creations of each new program. The teacher tenure dummy variable is an indicator for getting rid of automatic teacher tenure. 13

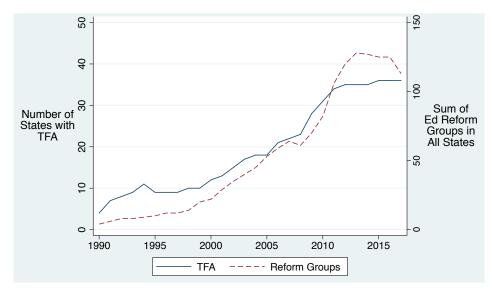


Figure 2: The Growth of TFA and the Growth of Education Reform Groups

<sup>&</sup>lt;sup>11</sup>Changes to charter laws would include, for example, raising the cap on the number of charters allowed, creating new authorizers, or creating new regulations on authorizers. In order to ensure that we are not biased in our coding of the data, we do not take a stance on whether changes are "pro-reform" or not. Indeed, even within the charter movement, there is disagreement on what charter laws should look like, with some wanting strong accountability and others wanting less. We code any revision to the law, apart from repealing it (which has not happened in any state). Changes over time do tend to be in the direction of allowing more charter schools.

<sup>&</sup>lt;sup>12</sup>We include legislation as well as rules, regulation and executive orders that make substantive changes

<sup>&</sup>lt;sup>13</sup>The data come from an array of sources, with some coming from organizations that collect this information, like the Education Commission of the States or the National Council on Teacher Quality, while others come directly from state statute. We list and provide summary statistics in Appendix Table A3. For the key variables and their sources, see Appendix Table A1.

On the face of it, the spread of TFA, the founding of new education reform groups, and the passage of education reform policies all seem to coincide in time. Figures 2 and 3 display the spread of TFA across states over time, along with the growth in education reform advocacy groups (Figure 2) and new education reform policies (Figure 3).<sup>14</sup> While these figures are consistent with our theory, more rigorous analysis is required to draw convincing conclusions.

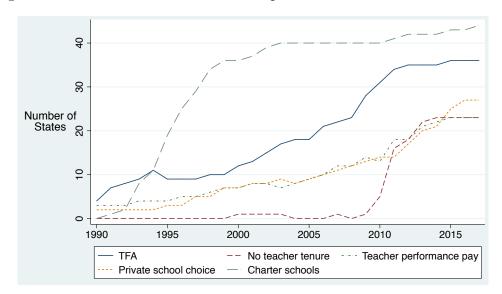


Figure 3: The Growth of TFA and the Spread of Education Reform Policies

## Estimating the Effects of TFA: Empirical Strategies

The estimation of TFA's effects would ideally be the result of the random assignment of contracting relationships with Teach For America across states or at least random assignment of the year that TFA teachers are initially hired within states. While there is a gradual expansion of TFA contracting across states since it was first introduced in 1990, we face the challenge that the introduction of Teach For America may not be random. Interviews with organization officers suggest an iterative process that cannot be reduced to simple rules; TFA selects possible locations considering, at a minimum, the severity of the achievement gap and an overall receptive political context including local philanthropic support, alternative

<sup>&</sup>lt;sup>14</sup>When plotting together not just the joint evolution but the presence of education reform policies and groups before and after the passage of TFA, we see a similar pattern. We show this in Appendix Figure B1.

certification policies permitting the use of TFA teachers, and a school district willing to contract with TFA.

While all these purported drivers of contracting with TFA should be considered in any estimation of the effects of contracting TFA on new education advocacy groups and policy changes, the second (the political context) is particularly challenging for the identification of any effects contracting with TFA may have. States that according to the criteria above are prioritized for contracting with TFA may have been states with a coalition of interest groups that advocated for and supported TFA, and that were also interested in education reform policies such as changes to teacher pay or in the introduction of charter schools. Hence, any relationship found between the introduction of a contracting relationship with TFA and policy or the arrival of education advocacy groups may not identify a causal effect but instead be partly driven by the political circumstances that increased the likelihood to contracting with TFA in the first place.

To get around this challenge, we add a number of controls. First, we control for stable state characteristics (using state fixed effects). Despite the fact that, given the small size of our panel, we need to be parsimonious in our specification, we consider an important temporal trend: the election of Barack Obama to the presidency in 2008. Many of the education reforms of interest (and so, indirectly, the groups that promoted them) were encouraged by the Obama administration, through the Teacher Incentive Fund (TIF), Race to the Top (RTTT), waivers to No Child Left Behind (NCLB) and Obama's clear alliance with the education reform movement. Education reform funders and advocates, including those with close ties to TFA, had roles in the White House (see Brill 2011). Additionally, the Obama Administration created the grant program Investing in Innovation (i3) which supported various charter school networks, among other recipients (including, in 2010, TFA). We include a binary variable that takes the value 1 starting in 2009 and 0 otherwise to control for these time trends.

Second, we add the following time-varying state controls: first, the NOMINATE measure

of state government ideology created by Berry et al. (2010). We may worry that changes in state legislative ideology over time (not captured in the state fixed effects) may favor both the introduction of TFA and other reforms, as well as be correlated with changes in education interest groups. While there has been some convergence between the parties on education in the most recent years (Hartney & Wolbrecht 2014), Democrats at the state level tend to oppose education reform policies (Lax & Phillips 2012) and may also oppose the introduction of TFA. The NOMINATE measure should capture this potential confounding. Second, we also include state National Education Association (NEA, the largest teacher union) membership rates as a proxy for teachers union strength. Teachers and teachers union members tend to oppose both TFA and education reform policies (Moe 2011, Peterson, Henderson & West 2014), so we might expect that where unions are stronger, both TFA and education reform policies are less likely to be established. Finally, we add a measure of the poverty rate in the state to control for the potential co-introduction of both TFA and changes in the education reform variables of interest in high-economic need states.

In addition to these controls, our main empirical approach exploits the fact that a key driver of the presence of TFA is a need for teachers that is unmet. In the 1990s, a major factor determining where TFA established sites was whether the location had teacher shortages (Baxendale 2019). To the extent that the introduction of TFA is related to teacher shortages, it will be independent of changes to education policies and to the presence of education reform groups. We use the presence of class size reduction laws as an exogenous source of variation in the demand for teachers, since such laws are plausibly unrelated to the introduction of alternatively certified teachers, including through TFA. These laws either incentivize class size reductions with additional funding or require them. For our purposes, these have two advantages: they create artificial scarcity in teachers as more are required to staff classrooms,

<sup>&</sup>lt;sup>15</sup>We alternatively use other measures of political differences, such as the partisan control of the legislature. Our results are robust to these specifications and shown in Appendix Table B4.

<sup>&</sup>lt;sup>16</sup>We are grateful to [REDACTED FOR REVIEW] for sharing this data with us.

<sup>&</sup>lt;sup>17</sup>Unfortunately, this data does not capture all teachers union members because it leaves out members of the American Federation of Teachers (AFT). However, if we instead use a measure of public sector unionization, our results are the same.

and there is good reason to believe that they are likely unrelated to our outcomes of interest and therefore satisfy the exclusion restriction.

We believe that class size laws satisfy the IV exclusion restriction for several reasons. There is little reason to worry that states passing class size laws also are predisposed toward education reform or the arrival of new reform groups; lower class sizes have not been a priority of the education reform movement, since they are costly and the empirical evidence on their effectiveness is mixed (Mishel et al. 2002). Class size laws are a popular reform, easy to explain and intuitively attractive for the public; 86 percent of parents and 84 percent of non-parents supported reducing class sizes in a 1999 NPR poll, 18 results that been validated in other years and in other surveys (see, for example, Howell, West & Peterson 2007). Such laws have been enacted by at least 24 states over the last few decades (Whitehurst & Chingos 2011).

We think the exclusion restriction would be violated one of two ways. One possibility would be that the violation is in the direction of no effect, since state teachers' unions tend to be big supporters of these laws and also tend to oppose education reform. Another possibility is that greater teacher union strength may instead be lead to more political backlash against unions and subsequent education reform. Simple regressions of our education reform outcomes on our standard state-year controls (see Appendix Table B1) show an insignificant but largely negative relation between union membership and education reform. This suggests that the first possible violation of the exclusion restriction has greater validity, and that instrumental variables models may, if anything, underestimate the relation between TFA and education reform. In all specifications, including instrumented ones, we include NEA membership rates, as controls to account for this potential bias.

To establish the relationship between class size laws and TFA presence (the first stage of our instrumental variable strategy), we use changes to class size laws in the state, with a one-year lag.<sup>19</sup> We use the excluded instrument to estimate the effect of TFA on outcomes

 $<sup>^{18} \</sup>mathtt{https://www.npr.org/programs/specials/poll/education/education.results.html}$ 

<sup>&</sup>lt;sup>19</sup>For robustness, we also consider models that take account of the fact that class size laws will have an

in a two stage least squares strategy.

More formally, the goal of the instrumental variable strategy is to establish the following simultaneous equations:

$$TFA_{s(y-2)} = \beta C_{s(y-3)} + \delta \mathbf{X}_{s(y-1)} + S_s + Post08_y + \alpha + \epsilon_{sy}$$
$$\Delta Y_{sy} = \beta \widehat{TFA}_{s(y-2)} + \gamma \mathbf{X}_{s(y-1)} + S_s + Post08_y + \alpha + \epsilon_{sy}$$

Here,  $\triangle Y$  are changes in the advocacy group or policy reform indicators. When the dependent variable is the arrival of reform groups or the passage of policies, the variable is binary, in which case, the model can be interpreted as a linear probability model.<sup>20</sup> C is our main excluded instrument, the presence of class size laws.  $\mathbf{X}$  are time-varying state controls and S are state fixed effects,  $Post08_y$  is a dummy that takes the value 1 from 2009 on and 0 otherwise (after Obama's election to the Presidency). The first stage results are displayed in Table 2. They show that class size laws are a strong predictor of TFA presence.

Table 2: First Stage Models for Potential Excluded Instruments: TFA Presence and Class Size Laws

	(1)
Class Size Law (Lagged)	0.212***
	(0.0575)
$\overline{N}$	1250
$R^2$	0.664
Fstatistic	109

The specification includes state-year controls: political ideology, poverty rate and NEA membership controls, as well as state fixed effects and the post-2008 variable. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

impact on the need for teachers if actual class sizes are large compared to the limit stipulated by class size laws, so we include pupil-teacher ratios (as reported by states to the National Center for Education Statistics) with a one-year lag. Although theoretically, it makes sense to include it in our models, it is not statistically significant when we include it in the first stage. In any case, if we re-run our results including this additional excluded instrument, our results do not change. This suggests that the main model using only class size laws parsimoniously captures the variation we are interested in. Additionally, for consistency with the instrumental variable specification below, where the control variables are contemporaneous with the policy reform and advocacy group dependent variables, in the first stage we include state-year controls with one year leads with respect to the TFA presence variable (i.e., the controls occur after TFA's arrival). Including them with lags instead does not alter our results.

<sup>&</sup>lt;sup>20</sup>In Appendix Table B2, we also report results from probit models for the binary variables.

In the second equation,  $\widehat{TFA}$  is the predicted presence of TFA on the basis of the first equation, with the start of TFA's state presence lagged two years<sup>21</sup> to account for the typical two year service of TFA corps members before they become alumni and may become advocates.<sup>22</sup>

For all specifications, s indicates the state and y the year. We cluster the standard errors  $\epsilon$  by state to account for correlation across different state-year observations.

For robustness, in addition to our main specification, we show instrumented models that do not include the post-2008 variable, as well as non-instrumented OLS models. We also show alternative differences-in-differences models where we are able to compare the trajectories of states that are ever recipients of TFA before and after the advent of TFA to remaining states. These models take the following form:

$$\triangle Y_{sy} = \beta_1 TFAever_s \times PostTFA_{s(y-2)} + \beta_2 TFAever_s + \gamma \mathbf{X}_{sy} + S_s + Year_y + \alpha + \epsilon_{sy}$$

Here TFAever (TFA ever present) is a dummy for whether the state is ever a recipient of the "TFA treatment."  $PostTFA_{s(y-2)}$  is a dummy variable that takes the value 0 if a state never receives TFA or if it does, in the period prior to its arrival. Alternatively, it takes the value 1 in the period after TFA's arrival. The coefficient  $\beta_1$  provides an estimate of the effect of the adoption of TFA for states that adopt it at some point in our panel. It compares state-years where TFA is adopted to those state-years where it has not, while taking into account state and year fixed effects. Although it is closely related to our main specification, it in effect restricts the comparison to states that participate in TFA at some point. Fewer state-years are included, as only states that at some point join TFA are in the models.

## The Effect of TFA on Education Reform Interest Groups

In this section, we test our prediction that contracting out the recruitment of teachers to TFA contributes to the introduction of education reform advocacy groups within the state

<sup>&</sup>lt;sup>21</sup>Our results are robust to lagging TFA anywhere between one and three years.

<sup>&</sup>lt;sup>22</sup>A more comprehensive analytical treatment of the pace of education reform after the introduction of TFA is given by the survival models implemented and discussed in the Appendix.

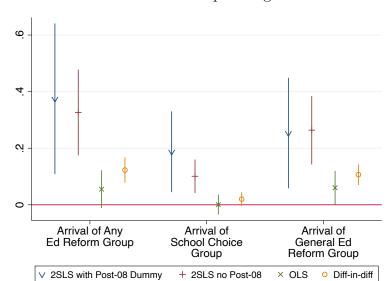


Figure 4: Education Interest Group Changes and TFA Presence

that TFA is located. There are different strands of the education reform movement, with some groups focusing only on school choice (private school choice policies like vouchers and tax credits as well as public school choice like charter schools), while others support a broader array of education reform policies, usually meaning charter schools as well as accountability policies. Some are national with state branches and others are single state organizations. For these reasons, we take as our dependent variables the arrival of an education reform group in the state, by which we mean the creation of new a group advocating education reform or the opening of a new state branch. We look at 1) any new education reform group, 2) a school choice-specific group, and 3) a general (not choice-specific) education reform group.

Coefficients from the main instrumented model, the instrumented model without the post-2008 variable, the OLS model, as well as a differences-in-differences model are shown in Figure 4.<sup>23</sup> Consistently in those models, we see that contracting with TFA is positively and significantly related to the arrival of education reform groups, as well as both types of groups: school choice and general education reform groups. When we disaggregate by the type of education reform group, the results become weaker, though they are strongest for the

<sup>&</sup>lt;sup>23</sup>We also show these results in Appendix Table A4, as well as OLS estimates in Appendix Table A5 and the difference-in-difference model in Appendix Table A6.

general education reform group. Looking at the IV specifications with the post-2008 dummy, state-years that have school districts contracting with TFA are 25 percentage points more likely to experience the founding of a general education reform group, and 18 percentage points more likely to see a new school choice group.

We theorize that the mechanism underlying this relationship is that TFA alumni are starting, leading, and joining education reform advocacy groups in the state where they do TFA, and in other TFA states. The latter could be facilitated if TFA alumni leave their placement states and join existing TFA communities. We examined the 2017 TFA alumni survey to check if alumni were in fact working for and leading the education reform organizations used to construct the variable in the analysis above, and where they were doing so. We found that, in 2017, 355 TFA alums were working for 37 of the education advocacy groups in our dataset across 32 states and Washington, D.C. We display these descriptive results in Appendix Table A7. The vast majority of the employees working for these groups were either in the state they had done TFA in or a different TFA state. Many also were serving in leadership roles, as directors, executives, or founders.

This is just a recent snapshot, however, and we do not have information about the employment of TFA alumni before 2017. Additionally, not every survey respondent wrote the name of their employer, which suggests this is a low estimate for the number of alumni working for the education reform advocacy groups in our analysis. As one more piece of suggestive evidence that TFA presence is connected with the participation of alumni acting as advocates, we find that where TFA has been in a state for a longer period of time, there are more TFA alumni who indicated on the TFA alumni survey that they work in government, policy or advocacy in the state. (See Appendix Table A11.) Taken together, this is suggestive that many TFA alumni stay in their placement state or go to other TFA states to work for education reform groups.<sup>24</sup>

<sup>&</sup>lt;sup>24</sup>The survey data also show that, among those working in advocacy or community organizing, those staying in their placement site are most likely to be younger alumni. Alumni with leadership roles tend to be older. We display these trends in Figures B2 and B3.

#### The Effect of TFA on Education Reform Policies

We have established that contracting out to Teach For America leads to the spread of education reform groups, likely through the mobilization of alumni. But does it lead to education reform policymaking? Figure 5 displays our results when outcomes are year-onyear changes in binary policies, specifically charter laws, private school choice, tenure repeal, and performance pay laws. We also look at the percent of public schools that are charters. In all specifications, we find a positive, statistically significant relationship between TFA and changes to charter school laws, and charter schools as a share of all public schools. In Panel A of Appendix Table A8, we show the point estimates for the main IV models, which include the post-2008 variable. Looking at the results that are statistically significant and focusing on the instrumented models with the post-2008 variable, we find that the presence of TFA is associated with an increase of 66 percentage points in the probability of the state changing charter school laws in a given year (top panel, left-hand specification in Figure 5).<sup>25</sup> These are all laws that change the status of charter schools, such as raising the cap, creating authorizers, determining the types of schools that are authorized, or the funding of charter schools.<sup>26</sup> According to the specification on the left-hand side of the bottom panel of Figure 5, contracting with TFA also leads to an increase of about 5 percentage points in the share of all schools that are charters.

When we do not include the post-2008 variable, the same instrumental variables estimates are additionally significant for the passage of private school choice laws and the repeal of automatic tenure (although still not for changes to performance pay). This difference across specifications likely speaks to the difficulty of identifying the effects of the variables in the

<sup>&</sup>lt;sup>25</sup>Note that changes to charter laws are relatively frequent and occur in a quarter of all state-year observations in our sample.

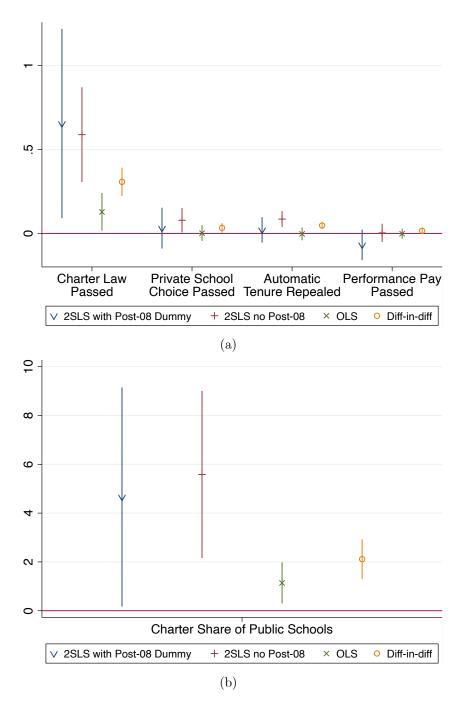
<sup>&</sup>lt;sup>26</sup>It is worth noting that the spread of charter laws has been well-documented, and accounts do not describe TFA or TFA alumni as the drivers of the earliest laws. (See, for example, Tantillo (2019)). Still, our charter law variable captures the passage of the initial laws as well as *changes* to the laws, and we find that our results hold when we drop all years prior to 1996, when the first laws passed. Indeed, by the mid-nineties, TFA founders and alumni were increasingly founding and running charter schools and networks and were present in conversations around the growth of the charter sector (Tantillo 2019).

period after Obama's election, when many of the changes to the education reform policies we focus on occurred, as is clear in Figure 3 above; in fact, we see in panel B of Appendix Table A8 that those policies, particularly changes to teacher tenure and the establishment of performance pay, are more likely to be introduced after Obama's election, since the coefficients on the post-2008 controls are statistically significant and positive. This makes sense because RTTT focused on teacher quality reforms and led states to change their tenure laws and enact various new policies like new teacher evaluations and performance pay schemes (Howell 2015).<sup>27</sup> However, this timing leaves little variation to be explained by the presence of TFA in the post-2008 period.<sup>28</sup>

<sup>&</sup>lt;sup>27</sup>In Appendix Table A9, we show the effects in OLS models. In addition, Appendix Table A10 show the differences-in-differences models.

<sup>&</sup>lt;sup>28</sup>To probe the validity of these effects, we perform two additional placebo analysis. First, we probe whether when estimated in the same way, we would find spurious "effects" of TFA on eight policy domains unrelated to education. We find that TFA is not related with any of the eight policies or an index of policy liberalism (shown in Appendix Figure C2). Second, we artificially shift the year of TFA introduction as if it occurred in years different from the real ones, to see if changes in education reform groups and policy changes are frequent enough that any relation found may be spurious and driven by these changes. We find in Appendix Tables C2 and C3 that our results are sensitive to recoding of the year of TFA's arrival, particularly for education reform groups.

Figure 5: The Effect of TFA on Education Reform Policies



# **Education Reform Groups as Mediators**

We conduct two sets of additional analyses. In the first, instead of looking at the *presence* of TFA, we use as our independent variable the number of TFA regions within the state. As

shown in Table B7, the effects of the number of regions (using OLS estimates) are similar directionally and in terms of statistical significance to our main specifications using TFA presence, for education reform groups. Similarly, in Table B8 we find a relation between the number of TFA regions and education reform policies, particularly for charters. Taken together these results are suggestive of a relation between the *dosage* (and not just the presence) of TFA in a state and the presence of groups and of education policy differences. We also use the number of corps members per state.<sup>29</sup> The estimated relations in Panel B of Tables B7 and Table B8 are directionally consistent with what we find for TFA regions.

Finally, we explore whether the arrival of education reform groups is in fact a mediator of the relation between TFA and education reform policy passage, as conceived in our predictions. In the models in Table 3, we include as potential mediating variables the arrival of education reform groups in the state, using instrumented models in panel A and OLS in panel B. We find that, when including these variables, all the effects of TFA on education reform policy variables become weaker but do not disappear. This suggests that, as we predicted, some but not all of the effect of TFA on these reform variables is mediated by the presence of education reform groups, in turn mobilized by TFA alumni. This is consistent with our theory that contracting advocate-providers can impact policy through the mobilization of workers as well as through the advocacy of the organization itself.

<sup>&</sup>lt;sup>29</sup>This data comes from archived versions of TFA's website, where numbers were sometimes contradictory and missing. We imputed missing values. That said, this dosage analysis is likely less reliable than the number of regions dosage analysis.

Table 3: Mediation Analyses: The Effect of TFA and Arrival of Education Reform Groups on Education Policies

	(1)	(2)	(3)	(4)	(5)	
	Charter	Charter	Private	Automatic	Performance	
	Law	Share of	School Choice	Tenure	Pay	
	Passed	Public Schools	Passed	Repealed	Passed	
Panel A: IV estimates						
TFA (lagged 2 yrs)	$0.563^{***}$	$0.0562^{**}$	0.0703	$0.0523^{*}$	-0.00659	
	(0.144)	(0.0177)	(0.0391)	(0.0238)	(0.0304)	
Arrival of education	0.0802	-0.00341	0.0254	$0.102^{***}$	0.0301	
reform groups	(0.0493)	(0.00297)	(0.0320)	(0.0282)	(0.0219)	
$\overline{N}$	1250	892	1250	1250	1250	
Panel B: OLS estimates						
TFA (lagged 2 yrs)	0.208***	$0.0211^{***}$	0.0255	0.0192	0.0109	
	(0.0457)	(0.00406)	(0.0216)	(0.0157)	(0.0119)	
Arrival of education	$0.141^{**}$	-0.00236	0.0331	0.108***	0.0271	
reform groups	(0.0479)	(0.00226)	(0.0316)	(0.0284)	(0.0209)	
N	1250	892	1250	1250	1250	

Models include state fixed effects, partisan control of the legislature, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.

#### Conclusion

Using the case of Teach For America, we have provided evidence that the use of advocate-provider nonprofits to carry out public services can have consequences for politics. Instrumenting for the presence of TFA using exogenous teacher shortages induced by class size laws, we found that the contracting of TFA to recruit public school teachers is related to the arrival of education reform organizations and the passage of education reform policies, especially charter laws. This suggests that contracting out advocate-provider nonprofits may impact policy outcomes and that it may do so at least in part through spurring additional advocacy on the part of nonprofit workers. Additionally, it likely strengthens the non-profit provider's direct advocacy—although we have not provided specific evidence showing this. The potential impact of government contracting on the activities of advocate-provider nonprofits constitutes a promising avenue of future research. Large-scale mining of state

lobbying data would be a way to establish these relations. Future work should also explore how the use of non-state actors, whether nonprofit or not, in the provision of public services impacts the political strength of public sector workers, another potential mechanism for the relationship we have found. The influence of these contracted organizations on public sector workers, through competition and through potentially weakening of public sector unions, is a promising avenue of future research, given the U.S.'s heavy reliance on such arrangements.

This study provides a fuller picture of the impact of TFA than has been available. Scholars' attention when it comes to TFA has largely focused on the program's impact on student achievement (Glazerman, Mayer & Decker 2006) and on teacher retention (Donaldson & Johnson 2011). Scholars have also studied the connections between TFA and large foundations (Reckhow & Snyder 2014), the links between TFA and other education organizations (Kretchmar, Sondel & Ferrare 2014), and the attitudes of corps members (Dobbie & Fryer 2015, McAdam & Brandt 2009). Less is known, however, about Teach For America's relationship to the growth of the education reform movement and education policy passage. This paper begins to fill this hole by showing a relationship between the program and education reform outcomes, as well as the connection between TFA introduction and the presence of education reform advocacy groups.

More generally, our paper contributes to the literature on policy feedback (Hacker 2002, Moynihan & Soss 2014) by providing evidence that the use of private providers in public service delivery impacts politics. The mode of influence we identify, however, is new. Scholars have shown that contracting can create vested interests with a stake in maintaining their privileged policy arrangements (Morgan & Campbell 2011). We have shown, however, that contracting can shape policy outcomes beyond those directly related to the preservation of the organization. Additionally, in line with the work of Goss, Barnes & Rose (2019), we have highlighted that a previously unexplored consequence of contracting—the socialization and subsequent mobilization of nonprofit workers and participants—may, in turn, influence policy. Further research could trace the processes whereby this policy feedback occurs for TFA and

the generalizability of this mode of of influence for other advocate-provider organizations.

Our findings suggest that when government decides to contract with organizations with strong advocacy missions like Planned Parenthood, Teach For America, Obria, or Habitat for Humanity, it may, in effect, help those organizations achieve their policy goals, whether those goals involve the passage of laws protecting women's reproductive rights, allowing charter schools, restricting abortion and promoting religious freedom, or providing affordable housing and protections for low-income tenants. The experience of women's health organizations suggests that politicians may use contracting as a lever to empower or weaken advocate-providers. Exploring other circumstances when contracting is deliberately used to coopt rather than to strengthen is a promising topic for future research.

Given that public services are heavily supplied by private providers, this phenomenon is understudied by political scientists. It is likely that there are far more instances of advocate-providers getting involved in policy areas beyond their own contracting than documented in this study. Indeed, to our knowledge, there is no centralized repository of the recipients of government contracting. Because government contracting of advocate-provider nonprofits challenges common notions of nonprofit independence as well as potentially enabling major changes to politics and policy that may or may not coincide with public opinion, more scholars should pay attention to the downstream political consequences of such contracting arrangements.

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# Supporting Information for "Advocates for hire: How government contracting shapes politics"

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Table A1: Variables and Data Sources

Variables	Definition and Coding	Source
Teach For America	Whether TFA operates in any	TFA Website (teachforamer-
	school districts in the state. 1990-	ica.org), accessing previous years
	2017.	using the internet archive
Number of TFA	Number of regions TFA has in a	TFA Website (teachforamer-
Regions	state. Regions are sometimes sin-	ica.org), accessing previous years
	gle school districts and are some-	using the internet archive
	times multiple districts in one ge-	
	ographic area. They have single	
	TFA training and administration,	
	and corps members receive site	
	"placements" and teach anywhere	
	within the site. 1990-2017.	
Number of TFA	Number of current TFA teachers	TFA Website (teachforamer-
Corps Members	in a state. 1990-2017.	ica.org), accessing previous years
		using the internet archive
Arrival of Any	Whether the state has an educa-	PIE Network, group websites,
Education Reform	tion reform group. Binary. 1990-	Manna & Moffitt (2014), personal
Group	2017.	communication with Sarah Reck-
		how, and IRS 990 forms
Arrival of School	Same as above but only includ-	PIE Network, group websites,
Choice Group	ing reform groups that focus on	Manna & Moffitt (2014), personal
	school choice exclusively. Binary.	communication with Sarah Reck-
	1990-2017.	how, and IRS 990 forms
Arrival of General	Same as above but only includ-	PIE Network, group websites,
Education Reform	ing reform groups advocating a	Manna & Moffitt (2014), personal
Group	broad array of education reform	communication with Sarah Reck-
	policies, which may include, but	how, and IRS 990 forms
	are not exclusive to, school choice	
	policies. Binary. 1990-2017.	
Charter Law	Changes to state laws regulating	Education Commission of the
Passed	charter schools. Binary. 1991-	States
	2017	

Table A1: Variables and Data Sources (continued)

Variables	Definition and Coding	Source
Private School Choice Law Passed <sup>30</sup>	Whether the state legislature en- acted voucher, tax credit, tax de- duction, tax scholarship, or edu-	ABCs of School Choice (Friedman Foundation)
1 asseu	cation savings account programs for attending private schools. Binary. 1990-2017	
Automatic Tenure Repealed <sup>31</sup>	Whether automatic tenure has been repealed. Binary. 1990-2017	Various sources, including the National Council for Teacher Quality, the Education Commis- sion of the States, and other sources
Performance Pay Passed	Whether state established a state-level program or fund that districts can use that pays teachers extra for student performance. Includes funds limited only to certain kinds of districts. Binary. 1990-2017.	Various sources, including the National Council for Teacher Quality, the Education Commis- sion of the States, and other sources
Charter Share of Public Schools	Number of charter schools over total number of public schools. 1999-2017.	Common Core of Data (National Center for Education Statistics)
Class Size Laws	Whether the state requires class size below a particular level. Binary. 1990-2017	The Education Commission of the States
Poverty Rates	Percent below the poverty rate. 1990-2017.	Current Population Survey
State Political Ideology	NOMINATE measure of state political ideology. 1991-2017	Berry et al. (1998)
NEA Membership Rate	Ratio of members of the National Education Association, the na- tion's largest public sector union, to all public school teachers. 1990-2016	Data collected by Michael Hart- ney and Mike Antonucci via NEA documents
Placebo Policies	Continuous. Various years from 1990-2017.	Caughey & Warshaw (2016) via the Correlates of State Policy Project

<sup>&</sup>lt;sup>30</sup>We count only programs passed during the 1990s and on. This leaves out Vermont and Maine's Town Tuitioning programs, passed in 1869 and 1873, respectively. We also do not include Iowa's tax credit, passed in 1987, or Minnesota's tax deduction program, passed in 1955, since these predated the advent of modern voucher programs.

 $<sup>^{31}</sup>$ Some states do not explicitly call their policies "tenure" but instead provide automatic continuing contracts. We include those as well.

Table A2: Education Reform Groups (Used to Construct Variable Indicating Whether the State Has a Reform Group)

Education Reform Organization	Type	State	Founding
, and the second	, , , , , , , , , , , , , , , , , , ,		Year
A Plus Education Partnership	general	Alabama	1991
BAEO - Alabama	choice	Alabama	2010
StudentsFirst - Alabama	general	Alabama	2012
Arizona Charter Schools Association	choice	Arizona	1995
Expect More Arizona	general	Arizona	2009
DFER - Arizona	general	Arizona	2013
Arizona Federation for Children	choice	Arizona	2014
A for Arizona	general	Arizona	2016
Arkansans for Education Reform Foundation	general	Arkansas	2007
Arkansas Learns	general	Arkansas	2012
Edvoice	general	California	1998
California Business for Education Excellence	general	California	1999
Education Trust - West	general	California	2001
CBEE Foundation	general	California	2001
Parent Revolution	general	California	2005
Edvoice Institute for Research and Education	general	California	2006
Go Public Schools	general	California	2009
Teach Plus California	general	California	2011
DFER - California	general	California	2011
Educators4Excellence - California	general	California	2011
StudentsFirst - California	general	California	2012
Innovate Public Schools	general	California	2013
Colorado League of Charter Schools	choice	Colorado	1994
BAEO - Colorado	choice	Colorado	2001
Colorado Succeeds	general	Colorado	2006
A+ Colorado	general	Colorado	2006
DFER - Colorado	general	Colorado	2009
Teach Plus Colorado	general	Colorado	2015
ReadyCO	choice	Colorado	2018
ConnCAN	general	Connecticut	2004
BAEO - Connecticut	choice	Connecticut	2010
Connecticut Council for Education Reform	general	Connecticut	2011
Families for Excellent Schools - Connecticut	choice	Connecticut	2012
StudentsFirst - Connecticut	general	Connecticut	2012
DFER - Connecticut	general	Connecticut	2014
Rodel Foundation of Delaware	general	Delaware	1999

5

Table A2: Education Reform Groups (Used to Construct Variable Indicating Whether the State Has a Reform Group), continued

Education Reform Organization	Type	State	Founding
DelawareCAN	general	Delaware	$\frac{\text{Year}}{2017}$
Hispanic Council for Reform & Educational Options	choice	Florida	2001
BAEO - Florida	choice	Florida	2002
Foundation for Florida's Future	general	Florida	2002 $2005$
Foundation for Excellence in Education Inc	general	Florida	2007
DFER - Florida	general	Florida	2009
StudentsFirst - Florida	general	Florida	2011
Georgia Partnership for Excellence in Education	general	Georgia	1992
BAEO - Georgia	choice	Georgia	2005
StudentsFirst - Georgia	general	Georgia	2011
GeorgiaCAN	general	Georgia	2017
Idaho Charter School Network	choice	Idaho	1998
Idaho Business for Education	general	Idaho	2005
Bluum	choice	Idaho	2018
Illinois Network of Charter Schools	choice	Illinois	2002
Advance Illinois	general	Illinois	2008
One Chance Illinois	choice	Illinois	2010
DFER - Illinois	general	Illinois	2012
Teach Plus Illinois	general	Illinois	2012
Educators For Excellence-Chicago	general	Illinois	2014
Institute for Quality Education	choice	Indiana	1991
BAEO - Indiana	choice	Indiana	2002
Teach Plus Indiana	general	Indiana	2009
DFER - Indiana	general	Indiana	2011
StudentsFirst - Indiana	general	Indiana	2011
StudentsFirst - Iowa	general	Iowa	2012
Prichard Committee for Academic Excellence	general	Kentucky	1983
BAEO - Kentucky	choice	Kentucky	2010
Louisiana Association of Public Charter Schools	choice	Louisiana	2007
BAEO - Louisiana	choice	Louisiana	2008
Louisiana Federation for Children	choice	Louisiana	2011
DFER - Louisiana	general	Louisiana	2015
StudentsFirst - Maine	general	Maine	2012
MarylandCAN	general	Maryland	2011
Massachusetts Business Alliance for Education	general	Massachusetts	1989
Stand for Children Inc	general	Massachusetts	2006
Teach Plus Massachusetts	general	Massachusetts	2009
DFER - Massachusetts	general	Massachusetts	2013
Michigan Association of Public School Academies	choice	Michigan	1996
BAEO - Michigan	choice	Michigan	2002

Table A2: Education Reform Groups (Used to Construct Variable Indicating Whether the State Has a Reform Group), continued

Education Reform Organization	Type	State	Founding
		3.5. 1.	Year
Great Lakes Education Project	general	Michigan	2004
DFER - Michigan	general	Michigan	2010
Education Trust - Midwest	general	Michigan	2010
StudentsFirst - Michigan	general	Michigan	2011
BAEO - Minnesota	choice	Minnesota	2005
MinnCAN	general	Minnesota	2010
StudentsFirst - Minnesota	general	Minnesota	2011
Educators4Excellence - Minnesota	general	Minnesota	2012
Edallies	general	Minnesota	2016
Mississippi First	general	Mississippi	1982
BAEO - Mississippi	choice	Mississippi	2010
Children's Education Alliance of Missouri	general	Missouri	2006
BAEO - Missouri	choice	Missouri	2008
DFER - Missouri	general	Missouri	2008
Aligned	general	Missouri	2011
StudentsFirst - Missouri	general	Missouri	2012
Educate Nebraska	general	Nebraska	2016
StudentsFirst - Nevada	general	Nevada	2011
Nevada Succeeds	general	Nevada	2013
Excellent Education for Everyone (E3)	choice	New Jersey	1999
BAEO - New Jersey	choice	New Jersey	2006
DFER - New Jersey	general	New Jersey	2010
StudentsFirst - New Jersey	general	New Jersey	2011
Better Education for Kids Inc	general	New Jersey	2011
Better Education Institute Inc.	general	New Jersey	2012
JerseyCan	general	New Jersey	2013
NewMexicoKidsCan	general	New Mexico	2018
BAEO - New York	choice	New York	2003
New York City Charter School Center	choice	New York	2004
DFER - New York	general	New York	2007
Educators4Excellence - New York	general	New York	2010
NYCAN	general	New York	2011
Families for Excellent Schools - New York	choice	New York	2011
StudentsFirstNY	general	New York	2012
Education Trust - New York	general	New York	2016
North Carolina Public School Forum	general	North Carolina	1985
Parents for Educational Freedom in North Carolina	choice	North Carolina	2005
CarolinaCAN	general	North Carolina	2012
BEST-NC	general	North Carolina	2013
The Thomas B. Fordham Foundation	general	Ohio	1997

Table A2: Education Reform Groups (Used to Construct Variable Indicating Whether the State Has a Reform Group), continued

Education Reform Organization	Type	State	Founding Year
Fordham Institute	general	Ohio	2002
kidsohio!	general	Ohio	2002
BAEO - Ohio	choice	Ohio	2004
School Choice Ohio	choice	Ohio	2005
Ohio Alliance of Public Charter Schools	choice	Ohio	2006
StudentsFirst - Ohio	general	Ohio	2011
DFER - Ohio	general	Ohio	2011
Ohioans for School Choice	choice	Ohio	2013
Oklahoma Business and Education Coalition	general	Oklahoma	2000
Oklahoma Achieves	general	Oklahoma	2014
E3: Employers for Education Excellence	general	Oregon	1996
Stand for Children Leadership Center	general	Oregon	1999
Chalkboard Project	general	Oregon	2003
African Americans for Educational Opportunities	choice	Pennsylvania	2001
BAEO - Pennsylvania	choice	Pennsylvania	2005
Pennsylvania Coalition of Public Charter Schools	choice	Pennsylvania	2005
StudentsFirst - Pennsylvania	general	Pennsylvania	2011
PennCAN	general	Pennsylvania	2012
Rhode Island Education Partnership	general	Rhode Island	1999
RI-CAN	general	Rhode Island	2010
DFER - Rhode Island	general	Rhode Island	2010
StudentsFirst - South Carolina	general	South Carolina	2013
SouthCarolinaCAN	general	South Carolina	2016
Tennessee SCORE	general	Tennessee	2009
Tennessee Charter School Center	choice	Tennessee	2009
StudentsFirst - Tennessee	general	Tennessee	2011
DFER - Tennessee	general	Tennessee	2013
BAEO - Tennessee	choice	Tennessee	2014
TennesseeCAN	general	Tennessee	2016
Campaign for School Equity	choice	Tennessee	2016
Texas Public Education Reform Foundation	general	Texas	2001
BAEO - Texas	choice	Texas	2001
Texas Institute for Education Reform	general	Texas	2006
E3 Alliance	general	Texas	2007
Educate Texas	general	Texas	2011
Texas Aspires	general	Texas	2013
DFER - Texas	general	Texas	2014
BAEO - Virginia	choice	Virginia	2004
Partnership for Learning	general	Washington	1992
LEV Foundation	general	Washington	2001

Table A2: Education Reform Groups (Used to Construct Variable Indicating Whether the State Has a Reform Group), continued

Education Reform Organization	Type	State	Founding
			Year
League of Education Voters	general	Washington	2001
DFER - Washington	general	Washington	2011
Washington State Charter Association	choice	Washington	2012
Black Education Strategy Roundtable	general	Washington	2014
BAEO - Wisconsin	choice	Wisconsin	2000
School Choice Wisconsin	choice	Wisconsin	2004
DFER - Wisconsin	general	Wisconsin	2009
Wisconsin Federation for Children	choice	Wisconsin	2014

BAEO = Black Alliance for Educational Options. DFER = Democrats for Education Reform. Founding years were determined by looking at groups' websites and 990 tax forms. Where the founding year could not be determined, we used the IRS non-profit status ruling year. For groups that are chapters of national groups, we considered the founding year to be the year when the particular chapter is first mentioned in archived screenshots of the organization's website, on tax forms, or on organization documents. Note that some organizations are now defunct, like MinnCAN, BAEO, and StudentsFirst.

Table A3: Summary Statistics, Pooled for all State-Years in the Sample 1990-2017

Variable	Mean	Std. Dev.	Min.	Max.	N
Education interest group change					
Arrival of Any Ed Reform Group	0.076	0.265	0	1	1400
Arrival of School Choice Group	0.024	0.154	0	1	1400
Arrival of General Ed Reform Group	0.06	0.238	0	1	1400
Change in policies					
Charter Law Passed	0.333	0.471	0	1	1400
Private School Choice Law Passed	0.037	0.189	0	1	1400
Automatic Tenure Repealed	0.019	0.138	0	1	1400
Performance Pay Passed	0.019	0.138	0	1	1400
Charter Share of Public Schools	3.50	4.3	0	27.2	942
Treatment variable					
TFA	0.394	0.489	0	1	1400
Number of TFA regions	0.524	0.756	0	4	1400
Instruments					
Class Size Laws	0.656	0.475	0	1	1400
Control variables					
Poverty Rate	12.735	3.525	4.5	26.4	1400
Political Ideology (NOMINATE)	47.016	14.767	17.512	73.619	1400
NEA Membership Rate	0.99	0.444	0.121	1	1350
Placebo policy variable changes					
Increase in CHIP Eligibility	0.143	0.351	0	1	796
Earned Income Tax Credit Passed	0.016	0.126	0	1	1250
Min. Wage Raised Above Federal Level	0.034	0.181	0	1	1150
Marijuana Decriminalization	0.005	0.069	0	1	1250
Assault Weapon Ban Passed	0.004	0.063	0	1	1250
Medicaid Allowed to Pay for Abortion	0.006	0.075	0	1	1250
Hate Crimes Made Illegal	0.012	0.109	0	1	1250
Death Penalty Abolished	0.005	0.069	0	1	1250
Level of Policy Liberalism	0.050	1.194	-2.525	2.814	1250

Table A4: Instrumental Variable Estimates: The Relationship between the Arrival of Education Reform Groups and TFA Presence, Instrumenting TFA Presence by Class Size Laws

	(1)	(2)	(3)
	Arrival of Any	Arrival of	Arrival of
	Education	School Choice	General Ed
	Reform Group	Group	Reform Group
Panel A:	Including time to	rends	
TFA (lagged 2 yrs)	$0.375^{**}$	$0.187^{**}$	$0.253^{*}$
	(0.136)	(0.0728)	(0.0996)
Post-08	-0.0333	-0.0599	0.00709
	(0.0495)	(0.0311)	(0.0381)
$\overline{N}$	1250	1250	1250
Panel B: No	ot Including time	trends	
TFA (lagged 2 yrs)	0.326***	0.101***	$0.264^{***}$
	(0.0774)	(0.0301)	(0.0617)
N	1250	1250	1250

Table corresponds to 2SLS models displayed in Figure 5, with class size laws as excluded instrument (lagged 2 years). Models include state fixed effects, the post-2008 dummy (in panel A only), political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\*p < 0.01, \*\*p < 0.001.

Table A5: OLS Estimates: The Relationship between the Arrival of Education Reform Groups and TFA Presence

	(1)	(2)	(3)
	Arrival of Any	Arrival of	Arrival of
	Education	School Choice	General Ed
	Reform Group	Group	Reform Group
TFA (lagged 2 yrs)	0.0551	0.000649	0.0604*
	(0.0333)	(0.0175)	(0.0297)
$\overline{N}$	1250	1250	1250

Table corresponds to OLS models displayed in Figure 5. Models include state fixed effects, a post-2008 dummy, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\* p < 0.001.

Table A6: Difference-in-difference Estimates: The Relationship between the Arrival of Education Reform Groups and TFA Presence

	(1)	(2)	(3)
	Arrival of Any	Arrival of	Arrival of
	Education	School Choice	General Ed
	Reform Group	Group	Reform Group
TFA ever X Post	0.0633**	0.00123	0.0601**
	(0.0234)	(0.0144)	(0.0199)
TFA ever	0.0648***	0.0295**	0.0443***
	(0.0155)	(0.00913)	(0.0126)
$\overline{N}$	1200	1200	1200

TFA ever is whether the state ever receives TFA and Post is whether TFA is present in the state-year, lagged by two years. Models include state and year fixed effects, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01\*p < 0.05\*, \*\*p < 0.01\*, \*\*p < 0.001\*.

Table A7: TFA Alumni Working for Advocacy Groups Used to Construct Education Reform Group Variable

		Proport	ion of Alumn	i at Org	
Organization	# at	In TFA	In Other	Leaders	States
S	$\operatorname{Org}$	State	TFA State		
50CAN	5	0.40	0.60	0.80	CA, MD, NC, NM, PA
A for Arizona	1	1.00	0	1.00	AZ
A+ Education Partnership	1	0	1.00	0	AL
Advance Illinois	1	0	1.00	1.00	IL
America Succeeds	1	0	1.00	0	CO
American Federation for Children	1	0	1.00	1.00	IN
AZ Charter Schools Association	5	0.40	0.20	0.20	AZ
Bluum	2	0	0	0.50	ID
CA Charter School Association	9	0.33	0.33	0.33	CA
Children's Education Alliance of MO	1	0	1.00	0	MO
Colorado Succeeds	1	0	1.00	1.00	CO
ConnCAN	1	0	1.00	0	CT
Democrats for Education Reform	3	0.33	0.33	0.67	LA, NY
EdAllies	2	0	0.50	0.50	MN
Educate Texas	2	0	1.00	1.00	TX
Educators4Excellence	57	0.28	0.25	0.26	AZ, CA, CT, DC, GA, IL, MA, MD, MN, MO, NJ, NV, NY, OH, PA, TN
Families For Excellent Schools	5	0.20	0.60	0.40	NY
Fordham Institute	3	0.33	0.67	0.33	DC
Illinois Network of Charter Schools	3	0	0.67	0.33	IL
Innovate Public Schools	$\overset{\circ}{2}$	0	1.00	0	CA, WA
Leadership for Educational Equity	58	0.28	0.40	0.43	AZ, CA, CO, CT, DC, GA, IL, LA, MA, MD, MI, NC, NJ, NY, PA, TN, TX, WA, WI
Mississippi First	4	0.25	0	0.25	MS
NYC Charter School Center	3	0.67	00	0.33	NY
National Alliance	2	0	0.50	0	AL, DC
National Council on Teacher Quality	7	0.14	0.57	0.43	DC, MD, MI, NC
NJ Charter School Association	1	1.00	0	0	NJ
Parent Revolution	1	0	1.00	1.00	CA
Stand for Children	9	0.22	0.56	0.56	CO, IL, IN, MA, WA, TX
Students Matter	1	0	1.00	0	CA
Students for Education Reform	4	0.25	0.75	0.5	CA, CO, MN, NC
TNTP	138	0.16	0.30	0.13	AR, AZ, CA, CO, CT, DC, FL, GA, IL, IN, LA, MA, MD, MI, MN, MO, MS, NC, NJ, NV, NY, OH, OK, PA, RI, SC, TN, TX, WI
Teach Plus	8	0.50	0.25	0.13	DC, IL, IN, TN, WA
Tennessee Charter School Center	0 1	1.00	0.25	0.13	TN
Tennessee SCORE	6	0.33	0.33	0.17	DC, TN
Texas Charter Schools Association	1	0.55	1.00	1.00	TX
Education Trust	4	0.25	0.75	0.50	CA, DC, MD, MI
WA Charter Schools Association	1	0.25	1.00	1.00	WA
VVII CHALUCI DUHOUIS ASSUCIATIOII	1		1.00	1.00	****

Table shows the number of TFA alumni that work for the indicated education reform groups in 2017 (according to the 2017 TFA Alumni Survey). The column "In TFA State" is the share that stayed in their original TFA placement state, while the column "In Other TFA State" provides the share moving to another TFA state. The share moving to a non-TFA state constitute the remainder (not shown). The column "Leaders" is the proportion listing their title as director, executive, or founder. The final column shows the states they were in.

Table A8: Instrumental Variable Estimates: The Relationship between Education Reform Policies and TFA Presence, Instrumenting TFA Presence by Class Size Laws

	(1)	(2)	(3)	(4)	(5)
	Charter	Charter	Private	Automatic	Performance
	Law	Share of	School Choice	Tenure	Pay
	Passed	Public Schools	Passed	Repealed	Passed
Panel A: Inc	cluding tim	e trends			
TFA (lagged 2 yrs)	$0.655^{*}$	$0.0466^{*}$	0.0316	0.0213	-0.0680
	(0.288)	(0.0229)	(0.0620)	(0.0388)	(0.0466)
Post-08	-0.0424	0.00862	0.0479	$0.0452^{**}$	0.0508**
	(0.110)	(0.00773)	(0.0295)	(0.0166)	(0.0196)
$\overline{N}$	1250	892	1250	1250	1250
Panel B: Not I	Including t	ime trends			
TFA (lagged 2 yrs)	0.589***	0.0558**	0.0786*	$0.0856^{***}$	0.00325
	(0.144)	(0.0175)	(0.0371)	(0.0244)	(0.0279)
N	1250	892	1250	1250	1250

Table corresponds to 2SLS models displayed in Figure 5. 2SLS models with class size laws as excluded instrument. Models include state fixed effects, the post-2008 dummy (as indicated, panel A only), political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\* \* p < 0.001.

Table A9: OLS Estimates: The Relationship between Education Reform Policies and TFA Presence

	(1)	(2)	(3)	(4)	(5)
	Charter	Charter	Private	Automatic	Performance
	Law	Share of	School Choice	Tenure	Pay
	Passed	Public Schools	Passed	Repealed	Passed
TFA (lagged 2 yrs)	0.129*	1.139**	0.00148	-0.00252	-0.00152
	(2.29)	(2.71)	(0.06)	(-0.13)	(-0.10)
N	1250	892	1250	1250	1250

Table corresponds to OLS models displayed in Figure 5. Models include state fixed effects, the post-2008 dummy, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\* p < 0.001.

Table A10: Difference-in-difference Estimates: the Relationship between Education Reform Policies and TFA Presence

	(1)	(2)	(3)	(4)	(5)
	Charter	Charter	Private	Automatic	Performance
	Law	Share of	School Choice	Tenure	Pay
	Passed	Public Schools	Passed	Repealed	Passed
TFA ever X Post	0.235***	0.0256***	0.0303*	0.0378***	0.0117
	(4.94)	(3.73)	(2.27)	(4.48)	(1.64)
TFA ever	0.0791	0.0121	0.0130	0.00242	-0.000444
	(1.53)	(1.72)	(1.04)	(0.51)	(-0.07)
N	1250	892	1250	1250	1250

TFA ever is whether the state ever receives TFA and Post is whether TFA is present in the state-year, lagged by two years. Models include state and year fixed effects, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\*\*p < 0.001.

Table A11: OLS Estimates: Relationship Between Number of TFA Alumni and Presence and Number of Years of TFA in the State

	(1)	(2)	(3)	(4)
	No. TFA alumni	No. TFA alumni	No. TFA alumni	No. TFA alumni
	in policy, advocacy	in policy	in policy, advocacy	in policy
	or government	or advocacy	or government	or advocacy
TFA (lagged 2 years)	104.5**	5.057*		
	(35.19)	(1.894)		
No. of years of TFA			7.859***	0.385***
in the state			(1.467)	(0.0811)
Observations	50	50	50	50
$R^2$	0.155	0.129	0.374	0.320

Table shows cross-sectional OLS models (2017 cross-section) using the presence of TFA or the number of years TFA has been in the state. Numbers of TFA alumni are in thousands. Standard errors in parentheses +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

# **Additional Specifications**

Table B1: The Relationship between Education Reform Policies and State-Year controls

	(1)	(2)	(3)	(4)	(5)
	Charter	Charter	Private	Automatic	Performance
	Law	Share of	School Choice	Tenure	Pay
	Passed	Public Schools	Passed	Repealed	Passed
NEA membership rate	-0.0206	-0.00313	-0.0526	0.0315	-0.0150
	(0.0781)	(0.00729)	(0.0382)	(0.0300)	(0.0168)
Poverty rate	-0.0234**	0.000667	0.00107	0.00404*	-0.00173
	(0.00701)	(0.000555)	(0.00236)	(0.00159)	(0.00183)
Ideology	-0.00238	0.0000744	-0.00278***	-0.000186	-0.000372
(NOMINATE)	(0.00145)	(0.000107)	(0.000488)	(0.000398)	(0.000385)
Post-2008	0.248***	0.0223***	0.0455**	0.0540***	0.0271**
	(0.0384)	(0.00330)	(0.0140)	(0.00877)	(0.00909)
N	1500	892	1500	1500	1500

Models include state fixed effects. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\*p < 0.01, \*\*p < 0.001.

Table B2: IV Probit Estimates: The Relationship between Education Reform Policies and TFA Presence

	(1)	(2)	(3)	(4)	(5)
	Charter	Charter	Private	Automatic	Performance
	Law	Share of	School Choice	Tenure	Pay
	Passed	Public Schools	Passed	Repealed	Passed
Panel A: Inc	cluding tim	ne trends			
TFA (lagged 2 yrs)	3.066***	2.088**	0.339	-2.714	-1.454
	(0.390)	(0.761)	(1.290)	(1.503)	(1.241)
Post-08	-0.918**	-0.264	0.341	$2.475^{***}$	$1.006^*$
	(0.312)	(0.438)	(0.690)	(0.475)	(0.424)
Observations	875	1100	700	650	600
Panel B: Not I	Including t	ime trends			
TFA (lagged 2 yrs)	2.576***	1.872***	1.282	2.158***	0.351
	(0.301)	(0.333)	(0.711)	(0.521)	(0.791)
Observations	875	1100	700	650	600

IV Probit (conditional MLE estimators) coefficients, models with class size laws as excluded instrument. Models include state fixed effects, a post-2008 dummy, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01\*p < 0.05, \*\*p < 0.01, \*\*p < 0.001.

Table B3: Instrumental Variable Estimates: The Relationship between the Arrival of Education Reform Groups and TFA Presence, including Partisan Control of the Legislature

	(1)	(2)	(3)
	Arrival of Any	Arrival of	Arrival of
	Education	School Choice	General Ed
	Reform Group	Group	Reform Group
TFA (lagged 2 yrs)	0.338*	0.171*	0.220*
	(0.134)	(0.0720)	(0.0979)
$\overline{N}$	1225	1225	1225

2SLS models with class size laws as excluded instruments (lagged 3 years). Models include state fixed effects, a post-2008 dummy, partisan control of the legislature, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.

Table B4: Instrumental Variable Estimates: The Relationship between Education Reform Policies and TFA Presence, including Partisan Control of the Legislature

	(1)	(2)	(3)	(4)	(5)
	Charter	Charter	Private	Automatic	Performance
	Law	Share of	School Choice	Tenure	Pay
	Passed	Public Schools	Passed	Repealed	Passed
TFA (lagged 2 yrs)	0.603*	4.323*	0.0117	0.00478	-0.0731
	(0.284)	(2.116)	(0.0580)	(0.0421)	(0.0520)
Post-08	-0.0328	1.046	0.0428	0.0499**	$0.0460^{*}$
	(0.107)	(0.704)	(0.0268)	(0.0181)	(0.0206)
Republican	0.0527	-0.574	$0.0793^{***}$	0.0152	0.0281
Legislature	(0.0481)	(0.566)	(0.0200)	(0.0110)	(0.0145)
$\overline{N}$	1225	874	1225	1225	1225

2SLS models with class size laws as excluded instrument. Models include state fixed effects, the post-2008 dummy, partisan control of the legislature, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01\*p < 0.05\*, \*\*p < 0.01\*, \*\*p < 0.001\*.

Table B5: Instrumental Variable Estimates: The Relationship between the Arrival of Education Reform Groups and TFA Presence, Restricting Models to Post-1997

	(1)	(2)	(3)
	Arrival of Any	Arrival of	Arrival of
	Education	School Choice	General Ed
	Reform Group	Group	Reform Group
TFA (lagged 2 years)	0.242	0.142	0.157
	(0.151)	(0.0880)	(0.112)
$\overline{N}$	950	950	950

2SLS models with class size laws as excluded instrument. Models include state fixed effects, the post-2008 dummy, partisan control of the legislature, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\* \* p < 0.001.

Table B6: Instrumental Variable Estimates: The Relationship between Education Reform Policies and TFA Presence, Restricting Models to Post-1997

	(1)	(2)	(3)	(4)	(5)
	Charter	Charter	Private	Automatic	Performance
	Law	Share of	School Choice	Tenure	Pay
	Passed	Public Schools	Passed	Repealed	Passed
TFA (lagged 2 years)	-0.0108	0.0466*	-0.0495	-0.0175	-0.143
	(0.235)	(0.0229)	(0.0812)	(0.0583)	(0.0979)
$\overline{N}$	950	892	950	950	950

2SLS models with class size laws as excluded instrument. Models include state fixed effects, the post-2008 dummy, partisan control of the legislature, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01\*p < 0.05\*, \*\*p < 0.01\*, \*\*p < 0.01\*, \*\*p < 0.001\*.

Table B7: Dosage OLS Estimates: The Relationship between the Arrival of Education Reform Groups and the Number of TFA Regions and Number of Corps Members

	(1)	(2)	(3)				
	Arrival of Any	Arrival of	Arrival of				
	Education	School Choice	General Ed				
	Reform Group	Group	Reform Group				
Panel A: Number of TFA sites							
Number of TFA Regions	$0.0534^{*}$	-0.00123	$0.0553^{**}$				
(lagged 2 yrs)	(0.0199)	(0.00885)	(0.0167)				
$\overline{N}$	1200	1200	1200				
Panel B: Number of Corps Members							
Number of Corps Members	$0.263^{*}$	0.0422	0.184				
	(0.111)	(0.0509)	(0.0928)				
N	1334	1334	1334				

Table shows OLS models using the number of TFA sites in the state, or number of corps members, as indicated, lagged by two years. Models include state fixed effects, a post-2008 dummy variable, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01\*p < 0.05, \*\*p < 0.01, \*\*p < 0.001.

Table B8: Dosage OLS Estimates: The Relationship between Education Reform Policies and the Number of TFA Regions and Number of Corps Members

	(1)	(2)	(3)	(4)	(5)		
	Charter	Charter	Private	Automatic	Performance		
	Law	Share of	School Choice	Tenure	Pay		
	Passed	Public Schools	Passed	Repealed	Passed		
Panel A: Numbe	r of TFA s	sites					
Number of TFA Regions	$0.118^{***}$	$0.0108^{**}$	-0.00468	-0.00109	-0.000842		
(lagged 2 yrs)	(0.0310)	(0.00331)	(0.0136)	(0.00979)	(0.00764)		
$\overline{N}$	1200	742	1200	1200	1200		
Panel B: Number of TFA Corps members							
Number of Corps Members	0.244	0.0338**	-0.0490	0.0196	0.0330		
	(0.139)	(0.0107)	(0.0693)	(0.0770)	(0.0506)		
N	1334	876	1334	1334	1334		

Table shows OLS models using the number of TFA sites in the state, or the number of corps members, as indicated, lagged by two years. Models include state fixed effects, a post-2008 dummy variable, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses +p < 0.01 \* p < 0.05, \*\*p < 0.01, \*\*p < 0.001.

# **Appendix Figures**

## Group Variables and Education Reform Variables Pre- and Post-TFA

Figure B1: Averages for Selected Dependent Variables by Number of Years to and from the Arrival of TFA

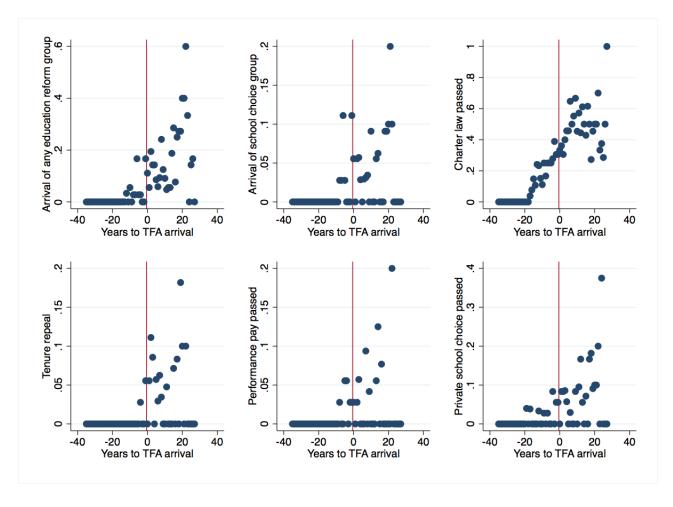


Figure B2: TFA Alumni in Advocacy Jobs, Share in Original TFA State, Other TFA State, or Non-TFA State

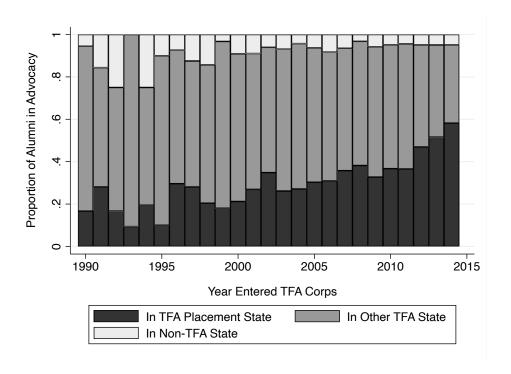
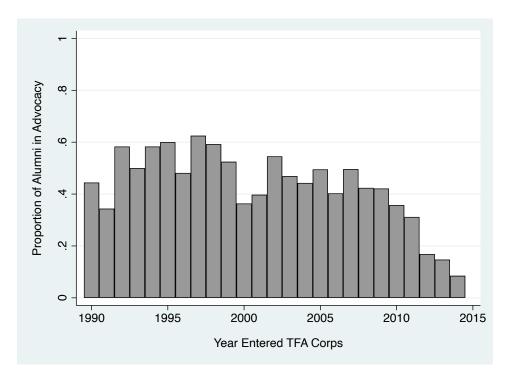


Figure B3: TFA Alumni in Advocacy Jobs, Proportion in that are Directors, Executives, or Founders



## Additional Analyses

#### Survival Models

In an additional empirical approach, we use survival models to provide a more detailed analysis of the time lag between a state's introduction of Teach For America and the arrival of education reform groups, as well as the passage of education reform policies. In the survival models, we compare this timing to states where TFA is not introduced. Survival models explicitly enable us to explore the cadence in the changes in reform group presence and the passage of different policies post-TFA.

Through Kaplan-Meier curves we can visualize the number of years it takes for TFA to have an effect. We can also observe whether the yearly likelihood of reform group arrival and the introduction of reform policies are different in places where TFA arrives, compared to those where it does not. We compare the pace of introduction of new groups and the passage of reforms by contrasting state-year observations n years after TFA was first contracted in a state to state-year observations n years from the time the state enters the dataset in 1990 without TFA. This is a hard test for finding differences, since the second group will include states that later on get TFA; once TFA arrives they move into the TFA-arrival group with their first year (0) being the year TFA arrives.

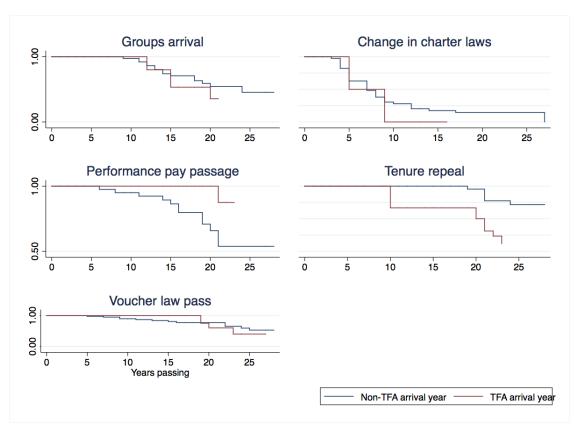


Figure C1: Survival by Years after TFA Arrives

We see the results in Figure C1. Descriptively, we see that states where TFA enters in the period see more rapid arrival of education reform groups and the introduction of some of the education reform measures, such as charter laws. The number of years between arrival and when the effect takes place varies across the policies, in ways that may not be captured by our main model specifications, where we stipulate a two-year lag structure between the effect on the dependent variables and the arrival of TFA.

### Placebo Tests

### The Effect of TFA on Unrelated Policy Domains

To probe the limits and validity of our theory, we first carry out a series of empirical tests with a variety of policies as dependent variables that we would not expect to be related to the introduction of TFA. Our goal is to ensure that our findings are not simply driven by the policy environment or the political ideology in the state that coincides in time with the introduction of TFA. Rather, these placebo tests aim to provide evidence that our findings are about TFA's causal relation with education reform groups and policies. We focus on eight policies that touch on civil liberties, criminal justice, welfare, and labor market policies -not plausibly related to TFA. The policies are binary variables for an increase in the income eligibility level of the Children Health Insurance Program (CHIP), as well as the passage of the following: income tax credits to support low income families, the minimum wage above the federal level, marijuana decriminalization, an assault weapons ban, whether medicaid is permitted to pay for abortion, a hate crimes ban, and a death penalty ban. We also include an index of policy liberalism created by Caughey & Warshaw (2016).<sup>32</sup> We use the Correlates Of State Policy Project data, which come from a variety of scholarly sources and are put together by the Institute of Public Policy and Social Research at Michigan State University (Jordan & Grossmann 2016). We fit models analogous to those in the previous sections and show in Figure C2 the coefficients from our main instrumental variables models with state fixed effects, the post-Obama dummy and state-year controls.

The existence of a contracting relationship with TFA is unrelated to all eight policies, and the coefficients are generally small.

We further show on the far right side of the figure that, when using the comprehensive measure of the degree of "policy liberalism," there is no relationship at all between TFA presence and the presence of more or less liberal policies. The evidence (with point estimates

<sup>&</sup>lt;sup>32</sup>This measure draws on 148 policies spanning eight decades, with at least 43 policies available in each year. See Caughey & Warshaw (2016).

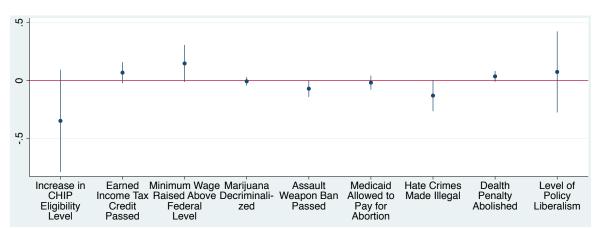


Figure C2: Changes to Placebo Policy Variables and TFA Presence

shown in Table C1) is compelling that TFA is not associated with the introduction of any other of these non-education policies or with more state liberalism generally. TFA does not seem to be associated to wider changes in the types of policies states adopt when TFA is present in the state, consistent with a causal interpretation of our findings.

Table C1: IV Placebo Test: The Relationship between Other Unrelated Policies and TFA Presence

	(1)	(2)	(3)	(4)	
	Increase in	Earned	Minimum Wage	Marijuana	
	CHIP	Income Tax	Raised Above	Decriminal-	
	Eligibility	Credit Passed	Federal Level	ized	
TFA (lagged 2 yrs)	-0.348	0.0686	0.148	-0.00643	
	(0.225)	(0.0466)	(0.0818)	(0.0190)	
$\overline{N}$	796	1150	1050	1150	
	(5)	(6)	(7)	(8)	(9)
	Assault	Medicaid	Hate Crimes	Death	Level of
	Weapon Ban	Allowed To	Made	Penalty	Policy
	Passed	Pay For Abortion	Illegal	Abolished	Liberalism
TFA (lagged 2 yrs)	-0.0702	-0.0179	-0.130	0.0363	0.0747
	(0.0361)	(0.0304)	(0.0689)	(0.0236)	(0.179)
N	1150	1150	1150	1150	1150

Table Corresponds to Figure C2. 2SLS models with class size laws as excluded instruments. Models include state fixed effects, a post-2008 dummy, political ideology, poverty rate and NEA membership controls. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\* p < 0.001.

#### Artificial Shifts of the Year of TFA Introduction

As an additional test for the robustness of our results, we run models where we code the TFA variable as if TFA arrival occurred on different years from the real ones. If we are capturing the causal relation between TFA and our outcomes of interest, the result should not hold when we do this recoding. In particular it would be least likely to hold when we re-code TFA to occur on years before TFA actually arrives in the state. We show in Table C2 (for education reform advocacy groups) and Table C3 (for education reform policies) model estimates when re-coding TFA arrival as happening 5 years prior. In panel A of each table we reestimate our preferred IV specification and in panel B, we estimate a difference-in-difference specification after re-coding. We do so because the difference-in-difference estimation should be particularly sensitive to the exact cutoff year picked. We find that, as expected, the results for education interest groups no longer hold when we artificially alter the year of TFA arrival, in any of the models (Table C2). The education policy variables are less sensitive to the year alteration in the IV estimates, but they also disappear in the difference-in-difference estimates (Table C3). Taken together, the sensitivity of our estimates to the recoding of the year of TFA's arrival supports our claim that the relation of TFA with our outcomes of interest is causal.<sup>33</sup>

<sup>&</sup>lt;sup>33</sup>Results are similar with year changes different from one to five.

Table C2: IV Placebo Test: The Relationship between Education Reform Group Arrival and TFA Presence, using a Placebo TFA Introduction Year

	(1)	(2)	(3)				
	Arrival of Any	Arrival of	Arrival of				
	Education	School Choice	General Ed				
	Reform Group	Group	Reform Group				
Panel A: IV estimates							
TFA	0.238	0.128	0.129				
	(0.131)	(0.0876)	(0.0853)				
$\overline{N}$	1000	1000	1000				
Panel B: Difference-in-difference estimates							
TFA ever X Post	-0.0192	-0.0156	-0.00252				
	(0.0342)	(0.0245)	(0.0257)				
$\overline{N}$	1000	1000	1000				

In both panels, we recode the TFA variable as though TFA arrived 5 years earlier than it did. Panel A is otherwise as in Table A4 and Panel B as in Table A6. Models include state fixed effects, political ideology, poverty rate and NEA membership controls (all recoded to n+5 years). In panel A, they include a post-08 dummy. In panel B, they include year fixed effects. Standard errors, clustered by state, in parentheses. +p < 0.01\*p < 0.05, \*\*p < 0.01, \*\*p < 0.001.

Table C3: IV Placebo Test: The Relationship between Education Reform Policies and TFA Presence, using a Placebo TFA Introduction Year

	(1)	(2)	(3)	(4)	(5)			
	Charter	Charter	Private	Automatic	Performance			
	Law	Share of	School Choice	Tenure	Pay			
	Passed	Public Schools	Passed	Repealed	Passed			
Panel A: IV estim	Panel A: IV estimates							
TFA	1.498**	0.0803***	-0.00311	0.0192	0.00335			
	(0.577)	(0.0190)	(0.0859)	(0.0397)	(0.0906)			
$\overline{N}$	1000	642	1000	1000	1000			
Panel B: Difference-in-difference estimates								
TFA ever X Post	0.0747	0.00445	0.00305	$0.0406^{**}$	0.00549			
	(0.0621)	(0.00516)	(0.0206)	(0.0124)	(0.0171)			
N	1000	642	1000	1000	1000			

In both panels, we recode the TFA variable as though TFA arrived 5 years earlier than it did. Panel A is otherwise as in Table A8 and Panel B as in Table A10. Models include state fixed effects, political ideology, poverty rate and NEA membership controls (all recoded to n+5 years). In panel A, they include a post-08 dummy. In panel B, they include year fixed effects. Standard errors, clustered by state, in parentheses. +p < 0.01 \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.