# The Lessons Private Schools Teach: Using a Field Experiment to Understand the Effects of Private Schools on Political Behavior\*

Emmerich Davies<sup>†</sup>

#### PLEASE FIND THE LATEST VERSION HERE

March 2, 2017

#### Abstract

Government services have often been found to act as important sites of political socialization. Through interactions with institutions and functionaries of the state, individuals learn important lessons about their worth as citizens and the functioning of democracy, form preferences over government services, and understand the value of political participation. What then happens when governments no longer provide basic services and are replaced by the private sector? I explore these questions in the context of a large private school voucher experiment. I leverage the randomized distribution of private school vouchers to understand the impact of private schools on citizen's engagement with the state. Based on an original household survey of 1,200 households conducted five years after a voucher lottery, I find that voucher winning households hold stronger market-oriented beliefs than voucher losing households. Voucher winning households are willing to pay more for private services and express a preference for private service provision. However, voucher winning households show no difference in political participation. Evidence suggest that this is driven by two factors: access to new channels through which to make political demands, and greater comfort with private providers as permanent economic actors. These results suggest economic preferences are malleable and exposure to different economic actors, in the form of private schools, have the potential to change them.

<sup>†</sup>Harvard Graduate School of Education. Email: emmerich davies escobar@gse.harvard.edu

<sup>\*</sup>I would like to thank Alexandra Cirone, Aniruddha Jairam, Devesh Kapur, Guy Grossman, Milan Vaishnav, Nina Brooks, Tulia Falleti, Ujju Aggarwal, workshop participants at the University of Pennsylvania, New York University, and the 2014 American Political Science Annual Meeting for insightful comments that have helped improved the paper immeasurably. Financial support for research and writing was provided by the University of Pennsylvania's Penfield Dissertation Research Fellowship, the Browne Center's Dissertation Research Grant, the American Institute for Indian Studies Junior Fellowship, and the National Academy for Education/Spencer Dissertation Fellowship. I am forever indebted to M. Rajani and the field coordinators from the Azim Premji Foundation for help implementing and conducting the survey. This project could never have happened without the support and input of Karthik Muralidharan. I also thank the survey respondents for their infinite patience.

# Introduction

Government services have been found to act as important sites of political socialization. Through interactions with institutions and functionaries of the state, individuals learn important lessons about their worth as citizens and the functioning of democracy, form preferences over government services, and understand the value of political participation. At the same time, private actors are providing a greater number of basic services across the developing world (Cammett and MacLean, 2011). What then happens when governments no longer provide basic services and are replaced by private actors? Do private actors break the link to this political socialization process? To answer these questions, I explore state exit in India, where citizens have increasingly turned to private organizations for basic services. Scholars have feared that as states cease to provide services and private actors emerge to fill the vacuum, citizens will become politically ambivalent as they no longer require the state to provide services (Hirschman, 1970; Ravitch, 2014). Despite the importance of these questions, making conclusive causal claims is difficult as the growth of private services tends to be historically contingent and highly endogenous to political outcomes. I leverage a randomized private school voucher program to overcome these problems and provide causal evidence on the effects of private services on political socialization. I find that access to private schools does not depoliticize citizens as some have feared, instead shaping economic preferences by making citizens more comfortable with a greater role for the private sector in service provision.

Specifically, I leverage a randomized school voucher lottery to understand the political consequences of state exit. In 2008, households across five districts of Andhra Pradesh, a large state in South India, were offered the chance to enter a private school voucher lottery, and winners could send their child to a private elementary school for four years. I returned to these households five years later and employed a number of methods, including an original survey of 1,200 households that entered the lottery, 30 semi-structured interviews with program participants and education bureaucrats in the South Indian state of Andhra Pradesh, and participant observation of government and private schools to test the effects of private services on political outcomes. I find that households that sent their children to private schools become more comfortable with paying out of pocket for other services that are currently provided by the government, which I take as evidence of increasing comfort with the private sector. Political participation - measured either by voting, a number of more costly partisan actions, or non-partisan local participation — does not differ between treatment and control groups. I argue that while exit from government services has an effect on mass publics, it is on economic preferences, and not political behavior. Evidence suggest that this is driven by an increasing comfort with private providers as permanent economic actors that is manifested through a number of mechanisms. Voucher winners report greater

contact with non-state actors for claim-making on the state, that the private sector became more "legible", and that they had greater faith in the private sector continuing to operate in low-income communities. I consider whether it is access to English language education rather than contact with the private sector, and find weak evidence for this alternative explanation.

These findings are important not only for what they tell us about the Indian case, but what they reveal about private service provision more generally. While social science has traditionally assumed that the state is the primary provider of basic services (Post, Bronsoler and Salman, 2015), the private sector is increasingly an important service provider both in the U.S. (DiIulio, 2014; Morgan and Campbell, 2011), and in the developing world (Cammett and MacLean, 2011). My estimates allow me to speak credibly about the effects of such shifts across a range of political outcomes, and have implications for those interested in service provision, market-oriented reforms, privatization, and political behavior more generally.

How, then, does this work? In the next section, I draw from literatures on policy feedback, political clientelism, and education and politics in India, as well as my own semistructured interviews and participant observations conducted concurrently to the survey to generate testable predictions on how the private provision of education could have an impact on mass publics' preferences and behavior.

# **Existing Literature and Theoretical Expectations**

Education provision provides an important test case for how public policy affects mass opinion. In an article that laid the foundations for the idea of "policy feedback" from policies to mass politics, Paul Pierson (1993) argued that there were two mechanisms of policy feedback: resource and interpretive effects. Policies, Pierson argued, "create powerful packages of resources and incentives that influence the positions of . . . individual social actors in politically consequential ways," (610). For example, the G.I. Bill in the United States reduced the cost of a university education for military veterans. As a result, those who took advantage of the G.I. Bill were better incorporated as citizens by increasing their predisposition for involvement (Mettler, 2002, 2005). Policies can also create beneficiaries that will later mobilize in defense of their benefits. Threats to cuts in Social Security and Medicare have often been met with a robust defense from senior citizens (Campbell, 2003).

New policies also influence "the manner in which social actors make sense of their environment," (Pierson, 1993, 610-1). Policies can change perceptions that shape subsequent preferences. As E. E. Schattschneider claimed, "new policies create a new politics," not only through a transfer of material resources, but also a change of perspective (Schattschneider, 1935). Interactions with representatives of the state provide citizens with examples of how the state views its citizens (Soss, 1999). Government programs and agencies are often the first point of contact citizens have with the state and provide "lessons about how citizens and governments relate, and these lessons have political consequences beyond the domain of welfare agencies" (Soss, 1999, 364). Initial experiences with these representatives of the state can powerfully shape perceptions and future engagement with government. The process of policy feedback does not always lead to greater levels of participation and engagement, however. Experiences with the criminal justice system (Weaver and Lerman, 2010), and some forms of welfare benefits (Soss, 1999), can serve to depoliticize citizens and see them withdraw from the political arena as they learn to distrust the state.

While there is an extensive literature on policy feedback in advanced democracies, there are fewer tests of these mechanisms in non-Western contexts. Lauren MacLean (2010, 2011b) finds that citizens that receive public services in rural Ghana and Cote d'Ivoire are more likely to participate politically. Jaimie Bleck (2011) finds that the mere act of sending children to government schools in Mali results in greater levels of political participation and campaigning from parents. Both authors suggest this is because households that make use of public services have incentives to ensure their continued provision and functioning. Their arguments illustrate the individual level foundations behind exit and voice (Hirschman, 1970). (MacLean, 2002, 2010, 2011a) argues that in response to the declining quality of public goods, citizens mobilized to demand better services from government officials through increased participation. The response to declining public services was not "exit" as predicted by classical economics, but "loyalty" and "voice" as Albert Hirschman suggested. Bleck (2011, 2013) views government schools as an explicit site of learning - families with students in government schools use these students as "linguistic brokers" to overcome linguistic barriers to greater political participation. Im and Meng (2015) find evidence of interpretive effects of policy feedback in China, where experiences with some welfare policies have spillovers to broader demands for government intervention.

Despite the many positive findings within this research program, not all public policies exhibit policy feedback. Lynch and Myrskyla (2009) found no evidence that pension systems created a class of beneficiaries that would mobilize in support of their benefits. This points to the importance of understanding the *design* of public policies (Soss, 1999). Soss (1999) argues that policies must be both "proximate" and "visible" to beneficiaries for there to be policy feedback. In this sense, public education in India meets both these criteria. Education's benefits in general "are universal and not means tested...[and] benefits are largely in-kind," (Katz, 2010, 55). Schools in India are often the first point of contact citizens have with the formal state (Corbridge et al., 2005), deliver the popular midday meal scheme (Drèze and Kingdon, 2001; Jain and Shah, 2005), and often serve as election polling stations (Susewind and Dhattiwala, 2014). Public teachers are often the most educated members of their community, and engage in a number of non-teaching activities — such as election monitoring and conducting the decennial census — that make them highly visible in their communities (Béteille, 2007). Teachers unions are powerful political constituencies in their own right, and frequently lobby politicians and voters to act in their interests (Kingdon and Muzammil, 2001a,b; Kingdon, 2009).<sup>1</sup> My own data suggests that upwards of 85 percent of government teachers served as either election monitors or census enumerators in the past year in my sample villages. Finally, the Government of India has undertaken a massive school construction drive over the last ten years that has ensured there is at least one government primary school within 1 km of *every settlement in the country* (See the right axis of Figure 1 for the rapid growth in government schools across India).

Another consistent lens through which to view politics in the developing world in general, and India in particular, has been that of patronage and clientelism. By clientelism, political scientists refer to "the direct exchange of a citizen's vote in return for direct payments or continuing access to employment, goods, and services," (Kitschelt and Wilkinson, 2007, 2). India has been described as a patronage democracy, where politicians relate to voters through exchange of material goods (Chandra, 2004). Parties in India use the promise of material goods to win votes (Wilkinson, 2006; Keefer and Khemani, 2009; Khemani, 2010), and reward voters (Vaishnav and Sircar, 2013). Schools have often been seen as part of this exchange, and voters have been found to respond positively to greater provision of education infrastructure (Vaishnav and Sircar, 2013; Fagernäs and Pelkonen, 2014).

In addition to the role that teachers and schools play in partisan politics, there is often political interference from above. There is frequent political interference from politicians in the sanctioning of teachers (Interview with M. Somi Reddy, District Education Officer Ranga Reddy District, September 2013). One survey respondent gave examples of how in the run-up to the 2014 legislative assembly election, the local MLA had begun to visit their village more frequently and had recently promised ₹100,000 (approximately \$1,600 at the time of field work) to the village primary school to build a wall around the school and provide board games for the children at the school (Anonymous Interview, Medak District, November 2013).

How, then, do we move from literatures on policy feedback and clientelism, that assume the state as the primary actor, to the impact of private services? Both the policy feedback and clientelism literature suggest that increased contact with the state, embodied through political parties and bureaucracies, state institutions, and public policies should lead to greater participation. Removing this contact should reduce the incentives and benefits from participation. Therefore, increased provision of private services should also result in decreased participation, resulting in  $H_1$ :

<sup>&</sup>lt;sup>1</sup>While I was in the field, the teacher's union of Andhra Pradesh was one of the organizers of a state-wide strike against the division of the state of Andhra Pradesh.

• H<sub>1</sub>: Private school voucher lottery winners will be less likely to participate in political forums.

Turning to interpretive effects, although not often framed using the language of policy feedback or clientelism, political scientists, economists, and sociologists have begun to theorize on the impact of private services on mass opinion. Using the randomized allocation of land titles to land squatters in low-income neighborhoods in Argentina, Di Tella, Galiani and Chargrodsky (2007) find that the assignment of land titles results in owners holding stronger market-oriented beliefs. They argue that greater exposure to the private sector leads to qualitatively different experiences for recipients of land titles relative to households that did not receive land titles. In a similar result, Earle and Gehlbach (2003) find that receiving property rights in Eastern European transition economies leads to greater support for further economic reform and freer markets. Amy Lerman (2013) finds that satisfaction with garbage privatization creates a ratchet effect where clients that correctly attribute whether their services are provided privately and are satisfied with their services are more likely to support privatization for other public services. Her mechanism suggests that experiences with markets in one realm creates a spillover effect where citizens are more likely to support markets in other realms. Jeffery and Jeffery (2008) argue that markets in health care in India will constitute new citizens who are "energetic and entrepreneurial in shopping around," (2008, 133).

This suggests that in households that previously lacked exposure to the private sector access to the private sector makes the sector more accessible as households are able to understand the functioning of private providers. This accessibility should make households more comfortable with a previously unknown entity leading to  $H_2$ :

• H<sub>2</sub> Private school voucher lottery winners should hold stronger market-oriented economic preferences.

Before proceeding to the data collection and results, I explore the Indian context in the next section and introduce the field site in which I conducted the survey.

# Private Services in India and the Andhra Pradesh School Choice Experiment

Over the last two decades the Indian government has rapidly increased public expenditure on welfare and public services. This trend has been particularly pronounced in education. Since 1990, public expenditure on elementary education has tripled (Goyal, 2009, 327). As can be seen in Figure 1, after the implementation of *Sarva Shiksha Abhiyan* (SSA or Education for All) in 2002, a Central Government Scheme, India has added an average 200 new government schools per district, or about 30 schools per district per year. As a result, India has achieved near universal enrollment in education (ASER, 2015), previously a pox on India's social development record (Weiner, 1990). Over the same period, Figure 1 also reveals the rapid abandonment of the government education sector: in 2003 approximately 17 percent of primary school children attended a private school which has nearly doubled to over 30 percent in 2014.<sup>2</sup>

In addition to expanding access to government schools, SSA also decentralized a large number of education administrative functions to the village level and mandated the creation of Village Education Committees (VECs) and School Management Committees (SMCs), local level governing bodies tasked with managing schools. Alongside the 73<sup>rd</sup> constitutional amendment that decentralized political power to the local level, villages in India are now tasked with deciding how school infrastructure funding should be spent (Jha et al., 2008), suggesting that local participation would control significant financial resources. This type of mandated decentralization has been shown to increase participation in other contexts (Davies and Falleti, 2017).



**Figure 1:** Growth of Private Education in India. The left axis measures the number of government primary schools per district. The dashed line corresponds to the left axis. The right axis measures percentage of children per district enrolled in private primary schools. The solid line corresponds to the right axis.

Academic and policy debates around education since the early 2000s have focused on two

<sup>&</sup>lt;sup>2</sup>By comparison, in the United States ten percent of students attend private or religious schools (*Private School Universe Survey (PSS)*, 2010).

closely related outcomes: increasing enrollment and retention (Banerji and Mukherjee, 2008) and improving test scores (ASER, 2015). The private sector has been seen as a solution to these twin problems as private provision is believed to help the understaffed and overstretched public sector (Rangaraju, Tooley and Dixon, 2012) and provide better quality education (Muralidharan and Sundararaman, 2015). Lost in this debate, however, are important questions on the appropriate role for states and markets in providing public services, and how these then come to affect the relationship between citizens and the state they live in. The Government of India's Right to Education (RTE) act of 2009 specifically reserved 25 percent of seats in private schools for "disadvantaged sectors", essentially implementing a policy on the faith that the private sector will be able to better educate the country's poor. Some commentators have called the policy, "India's civil rights moment," as it would bring disadvantaged groups in contact with the country's elites [Author's interview with Menaka Guruswamy, Supreme Court Advocate, November 2012].<sup>3</sup>

There are three reasons why Andhra Pradesh represents an ideal field site for studies of policy feedback and the impact of the private sector. First, Andhra Pradesh has often been lauded for its good governance, rapid economic growth, and high quality public goods provision. Chief Minister Chandrababu Naidu was dubbed one of India's "CEO" Chief Ministers, who were praised in domestic and international business circles for providing a conducive economic climate for large business (Rudolph and Rudolph, 2001). The state also has less "petty" corruption than many other Indian states, which is often seen as the form of corruption most burdensome for ordinary households (Bussell, 2010, 2012). The Government of Andhra Pradesh has successfully implemented some of the Government of India's flagship welfare schemes such as the National Rural Employment Guarantee Act (NREGA) and the Public Distribution System (PDS) (Khera, 2011; Afridi and Iversen, 2013). The Government of Andhra Pradesh's relative competence in providing public goods and general good governance suggests citizens would be more likely to respond with "voice" instead of "exit" in the face of private options. The government has been shown to respond to citizen demands in the past, and might be expected to respond in future situations, too. Therefore, my field site of Andhra Pradesh provides a hard test case for theories of policy feedback as a result of exit from the government sector.

Second, Andhra Pradesh has also aggressively led attempts in understanding the impact of private schools on student learning outcomes. The survey I conducted followed a series of large scale of experiments between the Government of Andhra Pradesh, the Azim Premji Foundation, and researchers from Harvard University, the World Bank, and the University of California, San Diego (Muralidharan and Sundararaman, 2010, 2011*a,b*, 2015). The voucher

<sup>&</sup>lt;sup>3</sup>Evidence from a similar policy in Delhi suggests that the policy is having a socially ameliorative effect at the individual student level (Rao, 2013).

experiment was explicitly designed to mimic Section 12.1(c) of the Right to Education Act. Section 12.1c of the Act specifies that private schools must accept 25% of their incoming class "belonging to weaker section and disadvantaged group in the neighbourhood and provide free and compulsory elementary education till its completion," (Government of India, 2009, 5-6). In effect, the policy serves as a private school voucher as the Government of India will pay compensate schools children admitted under this clause to attend private schools (Government of India, 2009, 6). In cases where enrollment for admission under this clause has been oversubscribed, admission was granted through a lottery (Rao, 2013). This provided a particularly conducive research environment in which to conduct research on the effects of the private sector.

Finally, the state has tremendous amounts of cultural, linguistic and religious diversity. The state is the furthest North of the South Indian states (see Figure 2 for location in India as well as survey districts.) and has a significant Islamic colonial influence in its Northern districts and a strong British colonial legacy in the East and South. I conducted fieldwork in five different districts across its three major regional areas, Telangana, Rayaleseema, and Coastal Andhra. The original private school voucher experiment purposefully selected these districts to account for Andhra Pradesh's tremendous social, cultural, and linguistic diversity.<sup>4</sup>



Figure 2: Survey Districts in Andhra Pradesh

Although I provide some relevant details about the original voucher experiment here,

<sup>&</sup>lt;sup>4</sup>I was in the field at the end of 2013 when the states of Andhra Pradesh and Telangana were still united as the state of Andhra Pradesh.

interested readers can consult the Appendix Sections B.1 and B.2 or Muralidharan and Sundararaman (2015) for further details. The Andhra Pradesh School Choice Experiment (from here on APSC) sought to test what the impact of private education would be on student achievement as measured by test scores. The original design improved on traditional voucher experiments by relying on a two-stage randomization process. In the first stage, suitable villages were identified in which there existed at least one recognized private school.<sup>5</sup> All villages were then informed that they would be entered into a private school voucher lottery run by the Azim Premji Foundation, a well known education NGO in South India. Then villages were randomized into treatment and control, creating a village-level counterfactual where some villages would be eligible to receive private school vouchers and others would serve as the control group. Next, households within treatment villages were then randomized in the second stage to receive vouchers, thereby creating a *household-level* counterfactual. This improves on traditional voucher experiments by being able to not only identify the effects of attending private schools on individual students, but also allows the researchers to study the school-level effects of vouchers by understanding the impact of new students in a school on students already in the school and on the school they then left behind by comparing treatment villages with control villages.

Due to resource constraints, I only sampled from treatment *villages*, so I was only able to explore individual and not community level effects, fully aware that those questions are also of interest to researchers in political science.<sup>6</sup> The threshold for effects at the community level, however, are theoretically higher. Effects from several students in one school would have to spillover to the village as a whole — a larger effect than expecting schools to influence individuals within them.

# Data and Methods

To test these hypotheses I rely on an original household survey of 1,202 households collected between September and December 2013 in five districts of Andhra Pradesh. The survey was conducted by a team of 11 surveyors administering an original in-person survey. The surveyors were hired for their familiarity with the project and pre-existing relationships with households. Between August and December 2013, I also conducted 33 semi-structured interviews with households that entered the lottery and participant observation of ten schools in

<sup>&</sup>lt;sup>5</sup>The Government of India distinguishes between recognized and unrecognized private schools. A recognized private school must be registered with the Government of India and meet a certain number of standards for infrastructural quality and pupil teacher ratios, including having toilets for boys and girls, and a wall around the school premises.

<sup>&</sup>lt;sup>6</sup>I should be clear that *within* treatment villages, I did sample from treatment and control *households*.

the sample villages (4 government and 6 private schools).

The survey sample was randomly drawn from the APSC Experiment. As the original experiment was stratified by district, this newer sample reflected this stratification.<sup>7</sup> The voucher was provided for five years of primary education that covered Standard 1 through Standard 5 (equivalent to 1st through 5th Grade), and I surveyed households when their scholarship child had finished 5th Grade and was entering secondary school. I exploited this randomization to conduct a "downstream experiment" on voucher recipients. Downstream experiments "leverage previous randomization to identify the effects of these interventions on new outcomes," (Baldwin and Bhavnani, 2011, 10) and effectively work as a natural experiment by exploiting exogenous variation created on the key independent variable by an external party. The APSC experiment did not ask any questions regarding political attitudes or behavior. The randomization provided clean identification of the effect of private services on the political attitudes and behaviors of recipient households.

### Operationalizing the Key Outcome Variables

This paper is interested in the effect of private schools on two broad outcomes of interests: 1. Political participation, and 2. Market-oriented beliefs. I operationalize these outcomes by grouping several related variables into summary indices.<sup>8</sup> Anderson (2008) recommends constructing the indices by taking the weighted mean of the standardized means of the individual variables that compose the index. The weights are used to maximize the amount of information captured by the index by giving greater weight to uncorrelated variables and is the inverse of the covariance matrix. By doing this, I increase statistical power while being robust to over-testing as I am only testing one outcome instead of a series of measures. Using an index ensures that researchers do not cherry-pick results that might be significant by chance and misinterpret the importance of individual components of the index. Following the convention established by Anderson (2008), I report the results of each individual component of the index as well as the full index. In the following section, I describe the individual components of each index and greater detail of the variable construction and coding is presented in Appendix A.1.

#### **Political Behavior**

*Partisan Political Participation* is an index composed of four variables: whether a household member is a member of a political party, whether they attended a political meeting over the

<sup>&</sup>lt;sup>7</sup>To account for this stratification in econometric specification, I include district fixed effects in all analyses. <sup>8</sup>The full description of these variables are provided in Appendix A.1.

past year, whether they canvassed for a political party over the past year, and whether they distributed leaflets for a political party over the past year.<sup>9</sup>

*Non-Partisan Political Participation* is an index composed of four variables: whether a household member is a member of a caste association, whether a household member is a member of a cooperative or labor union, whether a household member is a member of a self-help group (SHG), and whether a household member attended a *gram sabha* (village government) meeting in the past six months.

I did not ask respondents directly what parties they had voted for or intended to vote for for two reasons. First, due to limited resources, I would be unable to ask this question in a manner that protected respondent confidentiality and the secret ballot while still maintaining a relatively large sample size. Second, I was concerned about damaging the trust that surveyors and the implementing organization had established with respondents over the previous six years of the intervention and was sensitive to concerns from the implementing organization that wanted to continue working in these villages in the future.

#### Market-Oriented Beliefs

Turning to measurements of market-oriented beliefs, I attempt to measure market-oriented beliefs through stated and revealed preferences for the private sector, and through a measure of how much money households would be willing to spend out of pocket to receive services from the private sector. I do this through two indices, *Preference for Private Services* and *Valuation of Public Services*.

Preference for Private Services is an index composed of six variables, including: whether respondents would prefer a job in the private sector or with the government, whether respondents would prefer the private *financing* of services like health and education, whether respondents would prefer the private *provision* of services like health and education, whether respondents continued to send their voucher child to a private school *after* the private school voucher lottery was finished, the number of children in the household in private schools, and whether respondents go to a private health care provider if a household member falls sick.

Valuation of Public Services is an index composed of a respondent's valuation of two government services currently provided in-kind: publicly provided education and food rations. I presented respondents with a hypothetical scenario in which households could either receive a cash transfer from the government of a certain value to purchase services on the private market or continue to receive the service from the government in-kind, attempting to reveal a

<sup>&</sup>lt;sup>9</sup>The survey from which the data was collected was conducted between September and December 2013. National and state level elections were held concurrently in two phases in April and May 2014 in Andhra Pradesh. This meant that the period I was in the field was a highly salient time politically with lots of political activity and discussion among respondents as well in the area.

respondent's "valuation" of two important government services. For example, in the case of education I gave respondents the hypothetical option of either receiving a school voucher and being able to shop for a school for their children as they pleased *or* using the government school system. This represented a trade-off where respondents had to decide at what value of a hypothetical voucher they were more comfortable relying on the market for the service in question. The value elicited provides the value at which respondent's would be indifferent between receiving the value in-kind from the government or shopping for similar quality goods on the private market. I take this answer to represent the value respondent's attached to government services — a higher response suggests it would take a higher value voucher to convince respondents to abandon government services for privately provided services.

For school vouchers (food rations), starting with the amount of ₹3,000 per year (200 per month), surveyors asked respondents whether they would prefer to receive government provided education in-kind (their ration that month) or the specified amount in cash. The amount was increased in ₹500 (50) increments until either the respondent said they would rather receive that amount in cash *or* a maximum offer of ₹10,000 (1,000) was reached.<sup>10</sup> If the respondent did not accept any offer below ₹10,000 (1,000), the surveyor asked for the minimum amount the respondent would be willing to accept instead of government provided education directly (subsidized rations at government ration shops).

I also repeated this exercise for food rations. The Public Distribution System (PDS) is one of the Indian government's largest public welfare programs and provides Below Poverty Line (BPL) households with grains and cooking oils. I chose to present a hypothetical concerning the PDS because there have recently been moves to replace the direct subsidy of food distribution with cash transfers to households so that they can buy the same foods on the private market (Kapur, 2011). I call these two variables a respondent's valuation of public services. A lower value on these two variables suggests that households would be willing to receive a lower cash transfer from the government and make up any potential difference between the cash transfer and the market price for education or food through their own out of pocket expenditure.

I suggest that their revealed preference for this valuation of public services represents a respondent's relative preference for market services. I pick these two services as they are two services that have a potential "price" for their provision that a respondent could understand and calculate, as opposed to the government's workfare program or acquiring a below-poverty line card. The two services represent clear subsidies from the state to individuals and removing them would force households to bear expenses out of pocket. The choice I am for-

<sup>&</sup>lt;sup>10</sup>For school vouchers, surveyors also informed households how much that amount was worth per month to facilitate calculating monthly quantities.

shopping for that particular service on the open market. The valuation measure asks households to put a concrete price on the government service, with a lower valuation representing a lower valuation of the government provided service.

### Results

Given that assignment to private schools was randomly assigned, there should not be any unobservable differences between households attending private and government schools. I should note that as I was not involved the original design and implementation of the voucher lottery and experiment, the outcome variables presented here were not collected at the baseline or midline. I rely on the stronger assumption in randomization inference that prior beliefs are identical between treatment and control. As Duflo, Glennester and Kremer (2007, 45) argue, "randomization renders baseline surveys unnecessary, since it ensures the treatment and comparison groups are similar in expectation." This assumption does not allow me to test the *relative* changes in prior beliefs, only the *absolute* changes between treatment and control. There are some variables, such as voting behavior for example, for which I can model past behavior. In this case, there is no difference between treatment and control. However, I am unable to do this for the full range of questions I use. I provide some justification in the mechanisms section as to why I think we should interpret the results as "comfort" with the private sector rather than hostility to the public sector.

> Difference in Means Standard Error Household Income (Rs.) 3047.11 4055.87 Household Land (Cents) -3.87 6.40 Male (%)0.01 0.03 General Caste (%) -0.00 0.02 Voted: Lok Sabha 2009 (%) -0.00 0.01 Voted: Vidhan Sabha 2009 (%) 0.00 0.01 Visakhapatnam (%) 0.01 0.02 East Godavari (%) 0.04 0.02 Kadapa (%) -0.04 0.03 Medak (%) -0.02 0.02 Nizamabad (%) 0.01 0.02

There was covariate balance between treatment and control households on observables in my reduced downstream sub-sample as reported in Table 1.<sup>11</sup>

Table 1: Balance Tests Between Treatment and Control Groups

Summary statistics for the variables used in this paper are provided in Table 2. Approximately 50 percent of households that were offered vouchers were still sending their children

<sup>&</sup>lt;sup>11</sup>I should note that this is balance on observables that were time invariant.

	Mean	Standard Deviation	Min	Max	N
Voucher Winner (%)	66.31	47.29	0.00	1.00	1202
Private School at Endline (%)	47.29	49.95	0.00	1.00	1161
Income (Rs.)	8266.49	4448.04	0.00	33000.00	1201
Male (%)	38.52	48.68	0.00	1.00	1202
General Caste (%)	18.39	38.75	0.00	1.00	1202
Muslim (%)	8.90	28.49	0.00	1.00	1202
Age	36.02	6.72	18.00	70.00	1165
Salaried Employees in Household? (%)	14.36	35.08	0.00	1.00	1170
Years of Education	3.78	3.77	0.00	15.00	1201
School Age Children in Household	1.77	0.70	1.00	5.00	1202
Partisan Political Participation Index	0.00	0.79	-0.40	2.85	1202
Member of a Political Party (%)	3.42	18.19	0.00	1.00	1198
Attended Political Meetings (%)	32.55	46.88	0.00	1.00	1195
Canvassed for a Political Party (%)	14.12	34.84	0.00	1.00	1197
Distributed Political Leaflets (%)	8.75	28.26	0.00	1.00	1189
Associational Activity Index	0.00	0.64	-1.03	1.60	1202
Member: Caste Association (%)	19.18	39.39	0.00	1.00	1194
Member: Cooperative (%)	10.77	31.01	0.00	1.00	1189
Member: SHG (%)	73.62	44.09	0.00	1.00	1194
Voting Index	0.00	0.67	-2.84	0.26	1202
Intend to Vote: Lok Sabha (%)	91.84	27.39	0.00	1.00	1188
Intend to Vote: Vidhan Sabha (%)	91.38	28.08	0.00	1.00	1183
Voted: Panchayat (%)	95.79	20.10	0.00	1.00	1187
Private Services Index	0.00	0.79	-0.60	2.50	1202
Private Job (%)	10.09	30.13	0.00	1.00	1199
Private Services (%)	20.05	40.05	0.00	1.00	1202
Private Financing (%)	22.08	29.09	0.00	1.00	1200
Voucher Child in Private School (%)	22.62	41.86	0.00	1.00	1198
Number of Children in Private School	0.37	0.68	0.00	4.00	1202
Choose Private Health Facility (%)	59.70	49.07	0.00	1.00	1201
Valuation of Public Services Index	-0.00	0.72	-1.39	8.63	1202
Valuation of Government Schools (Rs.)	10379.97	3615.13	0.00	25000.00	1078
Valuation of Government Rations (Rs.)	1319.84	1052.52	0.00	15000.00	994

to private schools after five years. Additionally, 21 percent of households that did not receive a voucher sent their children to private schools on their own accord.

Table 2: Summary Statistics

\_

Although there were considerable numbers of non-compliers (see Table 3), particularly at the beginning of the experiment, I rely on the unconditional Intention to Treat (ITT) estimator of the form:

$$Y_i = \beta_0 + \beta_1 T_i + \beta_{d_i} Z_i + \mu_i, \tag{1}$$

Where  $Y_i$  is my outcome of interest,  $\beta_1$  is the unbiased estimate of winning a voucher on the outcome of interest (the intent-to-treat or ITT estimate). I estimate  $\beta_1$  both with and without controlling for household socioeconomic characteristics and individual respondent characteristics that include log household income, gender of the respondent, the household caste, a dummy for Muslims, the age of the respondent, whether there are any salaried employees in the household, the level of education, and the number of school aged children. I also include a set of district fixed effects ( $Z_i$ ) to absorb geographic variation, increase the precision of the estimate, and account for the stratification of the village-level lottery at the district level.

Compliance Rate in Treatment Villages					
	Offered Voucher				
	No	Yes			
Total	1,117	1,980			
Took-up Admission	NA	1,408			
		(51%)			
In Private School After Five Years	236	980			
	(21%)	(49%)			

Table 3: Compliance Rate: Full Sample

Although the main body of the text presents and discusses the ITT estimate, interested readers can turn to the appendix for various treatment-on-the-treated (TOT) estimates, using the original assignment to treatment to instrument for students that were enrolled in private schools, and students that were in private schools after two and four years.<sup>12</sup>

### **Political Behavior**

Turning to the results, Figure 3 presents results for a series of partisan political activities. Although voucher winning households show higher levels of partisan political participation, the effects are both small and statistically insignificant. Rates of partisan political activity are generally low, ranging from about three percent of respondents that claim they are a member of a political party, to a high of 32 percent claiming that they attended a political meeting, and having access to private schools does not change this engagement substantially. Even though the survey was conducted during a highly politicized period, immediately following village elections and five to eight months before highly salient state and national elections, rates of partisan political engagement remain low and similar between treatment and control. Voucher winning households are less than 10 percent of a standard deviation more likely to engage in partisan political activities than non-voucher households, with this effect increa-

<sup>&</sup>lt;sup>12</sup>In the main body of the paper, I present all regression results graphically in Figures 3 to 10. Interested readers can consult Section B.3 in the online Appendix for the full results in table form, including coefficients on control variables.

sing, and being driven, with the costliness of the activity. While there are small differences (from a low baseline) of membership in a political party, voucher winning households are more likely to claim to have distributed leaflets for a political party.



**Figure 3:** Each plot represents results for a regression of winning the voucher lottery on the dependent variable labeled on the left axis. All regressions also include district fixed effects. Robust standard errors are clustered at the school level.

Turning to non-partisan forms of participation Figure 4 shows that in an index of nonpartisan forms of political and associational participation, as well as the individual components of the index, we see no differences between voucher winners and losers. I should note that membership of self-help groups, one of the components of the index, is significant, but without a theoretically motivated reason to expect membership in self-help groups to change without any other variables, I hesitate to speculate on this result. Although political participation in India is consistently high, and higher amongst low income households (Banerjee, Duflo and Glennerster, 2008; Banerjee, 2011) — 91 percent of respondents reported voting in national or state-level elections and 97 percent of voters reporting they voted in local elections — there were no differences in political participation between treatment and control households.

Returning to my original hypothesis on political participation, I cannot reject the null that exit from public services decreases political participation. On all measures of political behavior, partisan political participation and electoral participation, treated households



**Figure 4:** Each plot represents results for a regression of winning the voucher lottery on the dependent variable labeled on the left axis. All regressions also include district fixed effects. Robust standard errors are clustered at the school level.

show no difference in participation relative to control households. Households that exited to the private sector are no less likely to exercise their voice than households that remained in government schools. Indeed, for some measures of political participation, exiting the private sector might even *increase* political participation, an effect I return to later while discussing mechanisms and causal pathways. At least for behavior, I fail to find any effect on private schools on political behavior as the findings of policy feedback would suggest. I now turn to economic preferences to understand if the *content* of political engagement does change, given that political participation was so high.

#### **Economic Preferences**

I measure economic preferences of respondents in two ways: first, I construct an index of the preference for private services and the private sector through a series of questions on both stated and revealed preferences for the private sector. Second, I attempt to elicit a respondents "valuation" of public services by presenting a hypothetical scenario on the amount of subsidies they can receive from the private sector. Returning to hypothesis 2, I argued that exposure to the private sector through private schools has increased voucher recipients comfort with the idea of the private sector.

Turning to the comfort with the private sectors, I present results from the index and entire set of indicators in Figure 5. The index itself is positive, significant, and robust to different specifications. Having won a private school voucher increases both stated and revealed comfort with the private sector by between 0.1 and 0.25 standard deviations as shown in the first set of coefficient plots in Figure 5. In other words, this suggests that having access to private school vouchers results in between a 4-10 percent increase in the number of respondents that say they would be more comfortable with the private sector providing services such as health and education. The second set of coefficient plots, which reports results on whether respondents would prefer a job in the private sector, presents the hardest test of comfort with the private sector. Jobs with the Indian state often represent a salaried income, guaranteed employment, and solid pension, while jobs in the private sector are often precarious and ephemeral (Jha, 2015). In this test of comfort with the private sector, there is no difference between treatment and control groups, and might even be a negative relationship between receiving a private school voucher and preference for a job in the private sector.

Turning to the other components of the index, however, we see a much stronger relationship with receiving a private school voucher and comfort with the private sector. Questions on whether a respondent would prefer the private provision of services currently provided publicly, the private *financing* of services provided publicly, whether households continued to send their voucher child to private schools *after* the voucher had expired, the percentage



Figure 5: Each plot represents results for a regression of winning the voucher lottery on the dependent variable labeled on the left axis. All regressions also include district fixed effects. Robust standard errors are clustered at the school level.

of children in the household in private schools, and whether households would use private health services when household members are sick all show a *positive* relationship between receiving a private school voucher and comfort with the private sector. Aside from the hard test case of a job in the private sector, having access to private services results in both stronger stated and revealed preferences for the private services.

To unpack another set of plausible preference changes, Figure 6 presents the results of the valuation of public services measures. Indeed, this is where we see the strongest results. As we can see from Figure 6, private school voucher winning households are more likely to express preferences for lower valuations of cash transfers and this result is both statistically significant and large in magnitude. Voucher winning households are willing to accept approximately ₹240 lower transfers for both school vouchers and food subsidies. For school vouchers, this represents a change of about 2 percent from the control mean, but for the food subsidy, this represents fifteen percent of the accepted amount amongst control households. Most importantly, ₹200 is about 1 percent of a household's monthly income, a significant difference in out of pocket expenditures for services they currently receive at a highly subsidized price from the government. Through access to private schools, voucher winning households are more likely to suggest that they would reduce the level of government subsidies on key public goods such as food subsidies and government private services and turn to the market for these services. This suggests a process of socialization that has occurred within voucher winning households, making them more comfortable with the idea of the private sector providing basic services.

# How do Preferences Change?

Returning to Pierson's differentiation between material and interpretive effects, my finding that respondent's developed stronger market-oriented beliefs suggest space for interpretive effects, but little evidence of material effects. But why? In this section I suggest that this effect is a result of changed experiences with service providers. These differential experiences have little to do with the relative *quality* of private and government schools, but with the perceived *permanence* of private providers. There is also evidence that access to private schools brought recipients into contact with new politically relevant actors and I suggest this had an effect on stated and revealed preferences. I find little evidence for the primary material channel, namely differential investments in children's education.

Here I present several pieces of evidence that are suggestive of how preferences changed. Voucher winners did not evaluate the "front-line functionaries" of the Indian state any diffe-



Figure 6: Each plot represents results for a regression of winning the voucher lottery on the dependent variable labeled on the left axis. All regressions also include district fixed effects. Robust standard errors are clustered at the school level.

rently than the control group,<sup>13</sup> did not have different evaluations of the Indian state broadly defined, and did not attach less importance to the provision of public goods in upcoming elections. Instead, the two channels through which voucher winners differed from the control group was in the networks they had access to to make political claims, and their confidence in the private sector as a primary actor.

### **Evaluations of Front-Line Functionaries**

One potential mechanism through which we could see preference and behavior change is through the relationships households have with the front-line functionaries of the Indian state, in this case schoolteachers and principals. Earlier I suggested that exit from government schools might serve to break these links that villagers might have with front-line functionaries, and remove the discretion the front-line functionaries have in influencing the distribution and treatment households receive of public services. Other research in India and other countries suggests that government *teachers* play an important role in the political process and have an influence on decisions people make about politics (Béteille, 2007, 2009; Kingdon, 2009). I also suggested that the involvement of teachers in the lives of respondent households was high. On top of there being at least one government primary school in each village, government teachers remained highly visible to all respondents, whether in treatment or control. For example, Figure 7 shows that 67 percent of respondents across treatment and control reported that they had experience with government school teachers working as census enumerators, and 79 percent of respondents claimed that they had experience with government school teachers working as election monitors. This is in a context where the last national census occurred two years before I fielded my survey and the last elections took place the month before I fielded the survey. Despite exiting the state as a service provider, the front-line functionaries of the state were still highly visible, and respondents had favorable impressions of them.

Along with a strong presence of government teachers in the lives of respondents, irrespective of whether they were in treatment or control, respondents also believed government teachers to be impartial government functionaries. In Figure 8 I ask respondents whether they thought government teachers cared about the well-being of their students and whether they also treated all students equally. Again, we see no differences between treatment and control in these two analyses.

Differential access or treatment by the government teachers as the front-line functionaries of the Indian state does not seem to be a plausible mechanism for preference change in

<sup>&</sup>lt;sup>13</sup>The front-line functionaries, or street-level bureaucrats are government workers "have wide discretion over the dispensation of benefits or the allocation of public sanctions" (Lipsky, 2010, xi).



**Figure 7:** Each group of coefficient plots represents results for a regression on the dependent variable labeled on the left axis. The first plot represents the unconditional intention-to-treat (ITT) estimate with district fixed effects of winning the voucher lottery on the outcome of interest. The second plot is the ITT with controls and district fixed effects. The final plot is the Treatment-on-the-treated (TOT) using original assignment to treatment and control to instrument for whether households kept their children in private school for five years with the same set of controls as the second regression. Robust standard errors are clustered at the school level.



**Figure 8:** Each group of coefficient plots represents results for a regression on the dependent variable labeled on the left axis. The first plot represents the unconditional intention-to-treat (ITT) estimate with district fixed effects of winning the voucher lottery on the outcome of interest. The second plot is the ITT with controls and district fixed effects. The final plot is the Treatment-on-the-treated (TOT) using original assignment to treatment and control to instrument for whether households kept their children in private school for five years with the same set of controls as the second regression. Robust standard errors are clustered at the school level.

this case. Households in both treatment and control reported equally high levels of contact with government teachers, and believed those teachers to be impartial in their treatment of students. Although government teachers have a large amount of discretion in the treatment of citizens inside and outside of schools, this does not appear to be driving preference formation. Additionally, the fact that they are so prevalent in the lives of respondents suggests that exit does not break ties to the front-line functionaries of the Indian state. Indeed, exit reduces the relationship between citizens and government teachers to one exclusively *outside* of schools: as census enumerators and in the polling booth, situations in which government teachers potentially have *more* power over citizens.

I now turn to two mechanisms that I suggest are plausible mechanisms for understanding the change of economic preferences of voucher winning households and are also consistent with a scenario where political behavior is left unchanged. There is evidence to suggest that voucher winning households had access to new channels of claim-making on the state that were of political consequence, and that voucher winning households experienced not a difference in *quality* of private schools, but an idea of *comfort* with the private sector.

### **Claim-Making Channels**

Beginning with channels of claim making, I try to gain purchase on these networks in two ways. I asked respondents how they would gain access to a variety of services, ranging from having their child admitted into a preferred government school or dealing with the land administration agency or police. I ask a number of questions given the large number of services a respondent could approach the Indian state for and further details on the questions and how they were coded are provided in Appendix Section A.1. I split answers into two groups: whether a respondent would make a claim on that particular service through a state or non-state channel.<sup>14</sup> I present results on two separate sets of regressions in Figure 9 and 10, the first which reports whether respondents reported approaching a representative of the state to access that particular service, and the second whether respondents reported approaching a non-state actor for access to that service.

Figure 9 shows that there is a decrease in the amount that voucher winning households approach official representatives of the state to make claims for state services. This is driven by three services: admissions to government schools, admission to a government hospital, and accessing work in the government's rural employment guarantee scheme. Mirroring this decrease in contact with state actors, Figure 10 shows a move *towards* non-state representatives for access to state services. The effects are also large, at the high end, the difference between

<sup>&</sup>lt;sup>14</sup>I do not distinguish whether the state channel that respondents report approaching is the *correct* state channel through which to access that services, rather where the channel is a state channel or not.

treatment and control represents between a 5 to 10 percent higher probability that a voucher winning household would approach a non-state actor to make a claim on the Indian state than a state actor. It appears that one of the mechanisms through which access to private schools changed preferences was through the political networks of claim making respondents had available to them. The contacts with private school teachers and principals were frequently cited in qualitative interviews, and these were, by definition, not available to households that did not send their children to private schools. Exit is not merely represented by the direct exit from government schools to private schools, but also through the exit from making claims on state agents, to using non-state actors as intermediaries through which to approach the Indian state.



**Figure 9:** Each group of coefficient plots represents results for a regression on the dependent variable labeled on the left axis. The first plot represents the unconditional intention-to-treat (ITT) estimate with district fixed effects of winning the voucher lottery on the outcome of interest. The second plot is the ITT with controls and district fixed effects. The final plot is the Treatment-on-the-treated (TOT) using original assignment to treatment and control to instrument for whether households kept their children in private school for five years with the same set of controls as the second regression. Robust standard errors are clustered at the school level.

These new networks were not always positive, however, as one respondent in Visakhapatnam made clear. The respondent originally jumped at the opportunity to enter the voucher lottery as it would allow her to send her son to the local convent school that had a strong reputation in her neighborhood and had been open for more than 100 years. Once in the school, however, she felt that both her and her son were discriminated against as lower caste Hindus by the sisters at the school (Anonymous Interview, Visakhapatnam District, November 2013). She removed her son from the school and re-enrolled him in a government school after just a few years in the convent school as a result of this poor treatment.



**Figure 10:** Each group of coefficient plots represents results for a regression on the dependent variable labeled on the left axis. The first plot represents the unconditional intention-to-treat (ITT) estimate with district fixed effects of winning the voucher lottery on the outcome of interest. The second plot is the ITT with controls and district fixed effects. The final plot is the Treatment-on-the-treated (TOT) using original assignment to treatment and control to instrument for whether households kept their children in private school for five years with the same set of controls as the second regression. Robust standard errors are clustered at the school level.

#### Permanence and Legibility: Comfort with the Private Sector

Finally, a preference change channel that was made abundantly clear during semi-structured interviews was the idea of increased comfort with the private sector through the newly perceived permanence and legibility of the private sector. As mentioned previously, voucher winners viewed private schools differently to the control group. For voucher winners, the ability to send their children to private schools for four years, the access to private schools *after* the voucher period was over, and the claim-making channels available to voucher winners suggests that a strong mechanism through which respondents became more comfortable with the private sector was through the idea that the private sector was now a permanent economic actor.

One role of the vouchers was to make the functioning of the private sector more "legible" to voucher recipients.<sup>15</sup> A voucher lottery loser, when asked if they would prefer to hold a government or private sector job, argued that government jobs were more stable because private companies were likely to leave if profits dried up. When asked about the value of private education, they expressed a similar fear that private schools were likely to abandon their village when they realized there were no profits to be made in low-income rural areas (Anonymous

<sup>&</sup>lt;sup>15</sup>The policy feedback literature has often argued that one of the mechanisms of policy feedback has been to make the government and public services more legible by helping citizens understand the workings of the state. This is a different form of James Scott's (1998) vision of legibility whereby the state makes its *citizens* more legible. In this instance, it is the private sector becoming more legible to ordinary citizens.

Interview, Medak District, September 2013). While a voucher winner also expressed a similar preference for government employment, they cited the benefits of government employment, not the uncertainty of private employment. This suggests that comfort with private service providers and the permanence of a private actor in the lives of respondents has effects beyond merely the direct service provided, instilling confidence with the private sector as a permanent economic actor. Another voucher lottery loser who sent her three grandchildren to a local Islamic religious school, was concerned that private school fee structures were too complex for her to understand. On the other hand, the local Islamic religious school provided education to Muslim families for free so she did not have to worry about understanding or paying fees (Anonymous Interview, Visakhapatnam District, September 2013).

### Alternative Explanations

Next, I consider an alternative explanation for the results: aspirations driven by a demand for English language education. This alternative explanation would suggest that it is not experiential experiences within schools that are driving the results resulting in greater preferences for the private sector, but new aspirations that emerge from having access to English language schools. When choosing schools, voucher lottery winers were allowed to choose any school available to them within their village, and in some cases one of these options was an English language school. Other scholars have shown that social aspirations in India are often driven by attainment of English as a symbol of both upward mobility and access to new labor market and social opportunities (Genicot and Ray, 2015; Lukose, 2009).

### English Language Explanation

A potential alternative explanation to the idea of private sector contact and permanence is one in which what matters is not access to *private* schools, but access to *English language* schools. The demand for English language education was a common reason given during interviews for why families entered the voucher lottery. English language education is believed to be an entry to a larger market economy and higher lifetime earnings (Fernandes and Heller, 2008; Kapur, 2010; Ohara, 2012).<sup>16</sup>

If it is these newly met aspirations that are driving the new economic preferences, then we should see stronger results for households that sent their children to English language schools instead of merely private schools. To test this potential explanation, I use the original voucher

<sup>&</sup>lt;sup>16</sup>Jaimie Bleck (2013) finds a similar effect with French language education in Mali, where French speaking children server as linguistic brokers for the rest of the family. The broader point here is that knowledge of the hegemonic language serves as a form of access to material and symbolic goods.

lottery assignment to instrument for whether the household sent their voucher child to an English language school.<sup>17</sup> For ease of interpretation, I only present the indices used in the analysis above.<sup>18</sup>



Figure 11: Each plot represents results for a regression of winning the voucher lottery on the dependent variable labeled on the left axis. All regressions also include district fixed effects. Robust standard errors are clustered at the school level.

Figure 11 presents the results of a regression that uses assignment to treatment and control to instrument for whether households sent their children to English medium schools.<sup>19</sup> The results largely mirror earlier results, with small differences in point estimates in the results on preference for the private sector the only difference between the instrumental variable results here and earlier.<sup>20</sup>

<sup>&</sup>lt;sup>17</sup>There are, of course, two sources of bias in the choice of an English language school. The first source of bias, that is corrected through an instrumental variable framework, is one in which non-compliers in the control group send their children to English language schools on their own accord. The second source of bias with English language schools, however, is the decision of the *type* of school once the household has won a voucher. This source of bias presupposes that there is a *market* of schools from which consumers can choose their preferred school. I address this source of bias as a potential alternative explanation below.

<sup>&</sup>lt;sup>18</sup>Interested readers can consult the appendix for the full set of results using the indices and individual components of the index.

<sup>&</sup>lt;sup>19</sup>This assumes that only private schools are English medium schools, a reasonable assumption at the primary level.

<sup>&</sup>lt;sup>20</sup>For example, the exact point estimates on the valuation of public services index for sending children to private schools for five years or English language schools can be see in Columns 5 and 6 in Table 27.

From these results, I cannot reject the possibility that at least some of the effects I find are being driven by access to *English language* schools as opposed to just private schools. The results are largely similar between the two specifications while the coefficients between the two results are substantively similar.

### Discussion

Five years after households were entered to a private school voucher lottery, I find that households that had access to private schools were more likely to hold stronger market-oriented beliefs. However, these market-oriented beliefs had no effect on political participation as measured through partisan activities, voting, or associational membership. I suggest that there were two channels through which this happened: new networks for political claim-making that provided households with access to private services, and confidence in the permanence of the private sector. I cannot rule out the possibility that some of this was driven, in part, by access to *English language* schools, instead of just *private* schools, as households that won a voucher lottery had greater access to both.

Returning to Pierson's original distinction between resource and interpretive effects, one set of results stands out. While access to private schools are unable to change a household's political beliefs and behavior, it does change economic preferences, increasing household's preferences for markets in basic service provision. While school vouchers have not given households material resources to impact their political choices, I argue here that they have provided households with a qualitative different experience of the private sector in the form of private schools. I posit two potential channels through which might have happened: increased networks through which households can make claims on the Indian state, and a belief in the greater permanence of the private sector.

Revisiting the results and my initial hypotheses, I find that voucher winning households are no more likely to participate in a number of partisan and electoral forums, from becoming members of political parties, to propensity to vote. There are small differences in households associational membership, with voucher winning households reporting higher levels of membership in groups like self-help groups, a popular form of non-partisan association in Andhra Pradesh (Srinivasan, 2012). The overwhelming evidence, however, is one of little difference between treatment and control households on political engagement, suggesting that the role of exit is not to disengage households from the Indian state.

There are, however, differences in what I broadly call "market-oriented beliefs". Households report a greater preference for services to be provided privately, reveal this behavior by sending a greater number of children to private schools, even once the school voucher has expired, and report a greater willingness to receive cash transfers instead of in-kind transfers from the Indian government. The last set of results are particularly large, with households willing to forgo approximately 10 percent of their monthly income to receive a cash transfer instead of in-kind transfers from the government for education and food subsidies. Returning to the claims made by Jeffery and Jeffery (2008), the mere access to private services seems to create a class of citizens more comfortable with the idea of "shopping around".

My measures of preference for cash transfers above in-kind transfers from the government are also not idle hypotheticals. The preference for lower cash transfers mirrors a salient debate in Indian policy circles and represents an attempted shift to pro-market service provision (see (Swamy, 2015) and (Davala, 2015) for two recent takes on the debate), as a shift to cash transfers and a lower revealed price for cash transfer preferences suggests respondents are more willing to "fend for themselves". It also represents a different form of welfare provision - moving from a world where citizens receive in-kind transfers, to a situation where the state is more distant and acts as a financier but not direct provider. I take a lower valuation of public services as a indication for a larger relative preference for this latter model of welfare provision. Although I do not expect respondents to have internalized the elite-level debate, differences between the two groups does suggest a greater level of comfort with selfsufficiency and paying out of pocket for a certain type of good that has traditionally been provided by the state.

I argue that these changes in economic preferences happen because of two effects. First, voucher lottery winning households gain access to new networks of claim-making that allow them to make claims on the state through non-state actors on top of only relying on official state channels of claim making. Voucher winning households are more likely to rely on non-state actors to gain access to state services and less likely to rely on state actors for the same access. I suggest this is because of access to new networks provided in schools through principals and teachers. Finally, semi-structured interviews revealed the idea of the permanence of the private sector. While control households revealed an uneasiness with the private sector as an ephemeral actor, voucher winning households had a greater comfort in the idea of private schools not closing or leaving their villages.

# Conclusion

The evidence presented here suggests that providing access to private services through private school vouchers has the potential to influence economic preferences, although effects are muted with respect to political behavior. Returning to the concerns of Jeffery and Jeffery (2008), it would seem that the increase of private service providers are constituting a new form of citizenship that is more comfortable with "shopping around." However, concerns that exit from the private sector would lead to the individual level depoliticization are not supported by these results. Households that had access to private schools were no less likely to participate in a number of political and non-political forums and showed no lower likelihood of voting in local and national level elections, even participating at higher rates in some instances. The literature on citizenship in India and my own fieldwork suggest two potential explanations for this finding. First, there is mounting evidence that citizens derive a strong intrinsic benefit from political participation. Mukulika Banerjee (2008, 2011) argues that elections are seen as a form of celebration, and the festival like atmosphere brings individuals out to vote. She describes elections as "*communitas*" that "suspends the rules of normal social order and brings instead a rare flowering of egalitarianism," (Banerjee, 2011, 94). Indeed, in my own fieldwork, individuals often expressed a sense of duty in participating politically - "we *must* vote" exclaimed one interviewee (Anonymous Interview, Kadapa District, November 2013).

More cynically, however, individuals also derive direct material benefits from political participation. Ahuja and Chhibber (2012) quote a rickshaw puller who claims that "if I don't vote, I am dead to the state." Individuals vote because they expect to gain direct material benefits from being *seen* to have participated. This squares with findings in Latin America that suggest that in the era of a secret ballot, political machines do not buy votes, but the *turnout* of potential supporters (Nichter, 2008). Again, I found support for this proposition in fieldwork where respondents (incorrectly) believed that if they did not vote they would be struck off electoral rolls that were used to not only determine eligible voters, but also the beneficiaries of government programs (Anonymous Interview, Nizamabad District, October 2013). If they did not vote, they were dead to the state.

There are important lessons for countries after market-oriented reforms. Welfare arrangements that include a large number of non-state providers are becoming the norm in both the OECD (Wolch, 1990; Gottschalk, 2000; Gingrich, 2011), and the developing world (Thachil, 2009; Cammett and MacLean, 2011). The question is not only germane to India. In education specifically, Chile has a long history of using private school vouchers to encourage poor families to attend private schools (Hsieh and Urquiola, 2006; Neilson, 2013). In Kenya, private schools attract the poor with better educational outcomes (Bold et al., 2011; Duflo, Dupas and Kremer, 2012). The growing number of *madrassas* in Muslim majority countries such as Mali and Pakistan can also be seen as a similar manifestation of state exit (Andrabi et al., 2006; Bleck, 2011).<sup>21</sup> Beyond the developing world, the increasing prominence of charter schools - publicly funded but privately operated - in the United States is but one example

<sup>&</sup>lt;sup>21</sup>There is a similar growth in religious education in India, see Thachil 2011.

of state "exit". These schools are privately managed but publicly funded (Ravitch, 2011). If these forms of welfare arrangements become the status quo, it is important to understand this form of service provision. This paper suggests that in regions with high levels of patronage, while actual political behavior might be unchanged, citizens opinions *are* changing by private service provision. The evidence presented here suggests that policy makers might find it difficult to roll back any reforms towards privatization enacted today as long as these reforms continue to build a mass public more comfortable with the idea of the private sector providing a large number of services.

Related work that has looked at the expansion of private education in Pakistan (Andrabi, Das and Khwaja, 2013) suggests that private service providers rely on critical inputs from the government, such as a well educated local population from which to recruit teachers and doctors. Instead of seeing the private and government sectors as competitors, they might instead be complements: to function, the private sector requires a functional state. Preference for greater privatization might emerge only when the state has already provided a basic safety net from which the private sector can benefit and citizens can fall back on.

This paper also improves on many existing studies of policy feedback in two ways: first, it is based on a randomly introduced policy experiment thereby providing clean causal estimates of the effect of the private sector, and second, it is based on a household level survey thereby providing evidence of the microfoundations at work in policy feedback. Reviews of policy feedback have often noted that a common problem plaguing studies of policy feedback have been their inability to make strong causal inferences as they were based on observational data or data at high levels of aggregation (Lynch and Myrskyla, 2009; Campbell, 2012). This study addresses both of the shortcomings of that literature to offer insights into the microfoundations on the relationship between policies and mass opinion, as well as providing clean causal identification on the policy of interest.

Finally, I contribute to a larger literature of the effects of institutions on individual-level preferences and behavior. Broadly defined as policy feedback (Pierson, 1993), I extend this literature to India and also to the idea of the private sector as a politically relevant actor. Given the rising prominence of non-state actors in service provision (Cammett and MacLean, 2011), it is important for political scientists to take non-state actors and the private sector seriously. My findings suggest that the private sector can have strong effects on the economic preferences of individuals. More work, and perhaps using a difference research design, is needed to understand whether there are also political effects, work that I undertake elsewhere in the dissertation.

# References

- Afridi, Farzana and Vegard Iversen. 2013. "Social Audits and MGNREGA Delivery: Lessons from Andhra Pradesh.".
- Ahuja, Amit and Pradeep Chhibber. 2012. "Why the Poor Vote in India: "If I Don't Vote, I Am Dead to the State"." *Studies in Comparative International Development*.
- Anderson, Michael L. 2008. "Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects." *Journal of the American Statistical Association* 103(484):1481–1495.
- Andrabi, Tahir, Jishnu Das and Asim Ijaz Khwaja. 2013. "Students Today, Teachers Tomorrow: Identifying Constraints on the Provision of Education." *Journal of Public Economics* 100:1–14.
- Andrabi, Tahir, Jishnu Das, Asim Ijaz Khwaja and Tristan Zajonc. 2006. "Religious School Enrollment in Pakistan: A Look at the Data." *Comparative Education Review* 50(3):446– 477.
- ASER. 2015. Annual Status of Education Report (Rural) 2014. Technical report ASER New Delhi: .
- Baldwin, Kate and Rikhil R. Bhavnani. 2011. "Secondary Analysis of Exeperiments: Opportunities and Challenges." *Comparative Democratization* 9(3).
- Banerjee, Abhijit V., Esther Duflo and Rachel Glennerster. 2008. "Putting a Band-Aid on a Corpse: Incentives for Nurses in the Indian Public Health Care System." *Journal of the European Economic Association* 6(2-3):487–500.
- Banerjee, Mukulika. 2008. Democracy, Sacred and Everyday: An Ethnographic Case from India. In *Democracy: Anthropological Approaches*, ed. Julia Paley. 1st edition ed. Santa Fe: Advanced Research Seminar Series: School for Advanced Research Press.
- Banerjee, Mukulika. 2011. "Elections as Communitas." Social Research 78(1):75–98.
- Banerji, Rukmini and Anit N. Mukherjee. 2008. "Achieving Universal Elementary Education in India: Future Strategies for Ensuring Access, Quality and Finance." *Margin: The Journal* of Applied Economic Research 2(2):213–228.
- Béteille, Tara. 2007. Absenteeism, Transfers and Patronage: The Political Economy of Teacher Labor Markets in India. Technical report Stanford University.
- Béteille, Tara. 2009. Absenteeism, Transfers and Patronage: The Political Economy of Teacher Labor Markets in India PhD thesis.
- Bleck, Jaimie. 2011. Schooling Citizens: Education, Citizenship, and Democracy in Mali PhD thesis Cornell University.
- Bleck, Jaimie. 2013. "Do Francophone and Islamic Schooling Communities Participate Differently? Disaggregating Parents' Political Behaviour in Mali." *The Journal of Modern African Studies* 51(03):377–408.
- Bold, Tessa, Mwangi Kimenyi, Germano Mwabu and Justin Sandefur. 2011. "The High Return to Private Schooling in a Low-Income Country.".
- Bussell, Jennifer. 2010. "Why Get Technical? Corruption and the Politics of Public Service Reform in the Indian States." *Comparative Political Studies* 43(10):1230–1257.
- Bussell, Jennifer. 2012. "Explaining Corruption: Electoral Competition and Varieties of Rent-Seeking in India.".
- Cammett, Melani Claire and Lauren M. MacLean. 2011. "Introduction: The Political Con-

sequences of Non-State Social Welfare in the Global South." *Studies in Comparative International Development* 46(1):1–21.

- Campbell, Andrea Louise. 2003. *How Policies Make Citizens : Senior Political Activism and the American Welfare State*. Princeton, N.J.: Princeton University Press.
- Campbell, Andrea Louise. 2012. "Policy Makes Mass Politics." Annual Review of Political Science 15(1):333–351.
- Chandra, Kanchan. 2004. Why Ethnic Parties Succeed: Patronage and Ethnic Head Counts in India. Cambridge: Cambridge University Press.
- Corbridge, Stuart, Glyn Williams, Manoj Srivastava and Rene Veron. 2005. Seeing the State: Governance and Governmentality in India. Cambridge: Cambridge University Press.
- Davala, Sarath. 2015. "Another Kind of Welfare: We Need an Informed Debate on Cash Transfers, Not Ideological Positioning." *Indian Express*.
- Davies, Emmerich and Tulia G. Falleti. 2017. "Poor People's Participation: Neoliberal Institutions or Left Turn?" *Comparative Political Studies* Forthcoming.
- Di Tella, Rafael, Sebastian Galiani and Ernesto Chargrodsky. 2007. "The Formation of Beliefs: Evidence From the Allocation of Land Titles to Squatters." *Quarterly Journal of Economics* 122(1):209–241.
- DiIulio, John J. 2014. Bring Back the Bureaucrats : Why More Federal Workers Will Lead to Better (and Cheaper!) Government.
- Drèze, Jean and Geeta Gandhi Kingdon. 2001. "School Participation in Rural India." *Review of Development Economics* 5(053660):1–24.
- Duflo, Esther, Pascaline Dupas and Michael Kremer. 2012. "School Governance, Teacher Incentives, and Pupil-Teacher Ratios: Experimental Evidence from Kenyan Primary Schools.".
- Duflo, Esther, Rachel Glennester and Michael Kremer. 2007. "Using Randomization in Development Economics Research: A Toolkit.".
- Earle, John S. and Scott Gehlbach. 2003. "A Spoonful of Sugar: Privatization and Popular Support for Reform in the Czech Republic." *Economics and Politics* 15(1).
- Fagernäs, Sonja and Panu Pelkonen. 2014. "Politics Before Pupils? Electoral Cycles and School Resources in India.".
- Fernandes, Leela and Patrick Heller. 2008. Hegemonic Aspirations: New Middle Classs Politics and India's Democracy in Comparative Perspective. In *Whatever Happened to Class?*, ed. Rina Agarwala and Ronald J. Herring.
- Genicot, Garrance and Debraj Ray. 2015. Aspirations and Inequality. Technical report.
- Gingrich, Jane R. 2011. Making Markets in the Welfare State: The Politics of Varying Market Reforms. Cambridge: Cambridge University Press.
- Gottschalk, Marie. 2000. The Shadow Welfare State: Labor, Business, and the Politics of Health Care in the United States. Ithaca: Cornell University Press.
- Government of India. 2009. "The Right of Children to Free and Compulsory Education Act, 2009.".
- Goyal, Sangeeta. 2009. "Inside the House of Learning: The Relative Performance of Public and Private Schools in Orissa." *Education Economics* 17(3):315–327.
- Hirschman, Albert O. 1970. Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States. Cambridge: Harvard University Press.
- Hsieh, Chang-Tai and Miguel Urquiola. 2006. "The Effects of Generalized School Choice

on Achievement and Stratification: Evidence from Chile's Voucher Program." *Journal of Public Economics* 90(8-9):1477–1503.

- Im, Dong-Kyun and Tianguang Meng. 2015. "The Policy–Opinion Nexus: The Impact of Social Protection Programs on Welfare Policy Preferences in China." *International Journal* of Public Opinion Research p. edv013.
- Jain, Jyotsna and Mihir Shah. 2005. "Antyodaya Anna Yojana and Mid-Day Meals in MP." *Economic & Political Weekly* pp. 5076–5088.
- Jeffery, Patricia and Roger Jeffery. 2008. "Money Itself Discriminates" Obstetric Crises in the Time of Liberalization. In *The State in India after Liberalization: Interdisciplinary Perspectives*, ed. Akhil Gupta and K Sivaramakrishna. Number Hindess 2002 New York: Routledge.
- Jha, Prashant. 2015. "Battle over Reservations: Can Quotas Really Work in India?" *The Hindustan Times*.
- Jha, Praveen, Subrat Das, Siba Sankar Mohanty and Nandan Kumar Jha. 2008. *Public Provision for Elementary Education in India*. Los Angeles: Sage Publications.
- Kapur, Devesh. 2010. The Political Economy of the State. In *The Oxford Companion to Politics in India*, ed. Niraja Gopal Jayal and Pratap Bhanu Mehta. Oxford: Oxford University Press.
- Kapur, Devesh. 2011. "The Shift to Cash Transfers: Running Better But on the Wrong Road?" Economic & Political Weekly XLVI(21):80–85.
- Katz, Michael B. 2010. "Public Education as Welfare." Dissent 57(3):52-56.
- Keefer, Philip and Stuti Khemani. 2009. "When Do Legislators Pass on Pork? The Role of Political Parties in Determining Legislator Effort." *American Political Science Review* 103(1):99–112.
- Khemani, Stuti. 2010. "Political Economy of Infrastructure Spending in India." (September).
- Khera, Reetika. 2011. "Revival of the Public Distribution System: Evidence and Explanations." *Economic & Political Weekly* XLVI(44-45):36–50.
- Kingdon, Geeta G. 2009. School-Sector Effects on Student Achievement in India. In *School Choice International: Exploring Public-Private Partnerships*, ed. Rajashri Chakrabarti and Paul E. Peterson. Cambridge: MIT Press.
- Kingdon, Geeta G. and Mohd Muzammil. 2001*a*. "A Political Economy of Education in India I: The Case of UP." *Economic And Political Weekly* 36(32):3052–3063.
- Kingdon, Geeta G. and Mohd. Muzammil. 2001b. "A Political Economy of Education in India II: The Case of UP." *Economic And Political Weekly* 36(33):3178–3185.
- Kitschelt, Herbert and Steven I. Wilkinson. 2007. A Research Agenda for the Study of Citizen-Politician Linkages and Democratic Accountability. In *Patrons, Clients, and Policies: Patterns of Democractic Accountability and Political Competition*, ed. Herbert Kitschelt and Steven I. Wilkinson. Cambridge: Cambridge University Press.
- Lerman, Amy E. 2013. "Garbage In, Garbage Out: Information , Experience , and Public Opinion towards Privatization.".
- Lipsky, Michael. 2010. *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services*. 30th anniv ed. New York: Russell Sage Foundation.
- Lukose, Ritty A. 2009. Liberalization's Children: Gender, Youth, and Consumer Citizenship in Globalizing India. Durham NC: Duke University Press Books.
- Lynch, Julia F and Mikko Myrskyla. 2009. "Always the Third Rail? Pension Income and
Policy Preferences in European Democracies." *Comparative Political Studies* 42(8):1068–1097.

- MacLean, Lauren M. 2002. Solidarity in Crisis: Social Policies and Social Support Networks in Ghana and Cote d'Ivoire PhD thesis.
- MacLean, Lauren M. 2010. Informal Institutions and Citizenship in Rural Africa: Risk and Reciprocity in Ghana and Côte d'Ivoire. Cambridge: Cambridge University Press.
- MacLean, Lauren M. 2011a. "The Paradox of State Retrenchment in Sub-Saharan Africa: The Micro-Level Experience of Public Social Service Provision." World Development 39(7):1155–1165.
- MacLean, Lauren M. 2011b. "State Retrenchment and the Exercise of Citizenship in Africa." Comparative Political Studies 44(9):1238–1266.
- Mettler, Suzanne. 2002. "Bringing the State Back In to Civic Engagement: Policy Feedback Effects of the G.I. Bill for World War II Veterans." *American Political Science Review* 96(02):351–365.
- Mettler, Suzanne. 2005. Soldiers to Citizens: The G.I. Bill and the Making of the Greatest Generation. Oxford: Oxford University Press.
- Morgan, Kimberly J. and Andrew Louis Campbell. 2011. *The Delegated Welfare State : Medicare, Markets, and the Governance of Social Policy*. New York: Oxford University Press.
- Muralidharan, Karthik and Venkatesh Sundararaman. 2010. "Contract Teachers : Experimental Evidence from India.".
- Muralidharan, Karthik and Venkatesh Sundararaman. 2011*a*. "Teacher Opinions on Performance Pay: Evidence from India." *Economics of Education Review* 30(3):394–403.
- Muralidharan, Karthik and Venkatesh Sundararaman. 2011*b*. "Teacher Performance Pay : Experimental Evidence from India." *Journal of Political Economy* 119(1):39–77.
- Muralidharan, Karthik and Venkatesh Sundararaman. 2015. "The Aggregate Effect of School Choice: Evidence from a Two-Stage Experiment in India." *Quarterly Journal of Economics* 130(3):1011–1066.
- Neilson, Christopher. 2013. "Targeted Vouchers, Competition Among Schools, and the Academic Achievement of Poor Students.".
- Nichter, Simeon. 2008. "Vote Buying or Turnout Buying? Machine Politics and the Secret Ballot." American Political Science Review 102(01):19-31.
- Ohara, Yuki. 2012. "Examining the Legitimacy of Unrecognised Low-Fee Private Schools in India: Comparing Different Perspectives." *Compare: A Journal of Comparative and International Education* 42(1):69–90.
- Pierson, Paul. 1993. "When Effect Becomes Cause: Policy Feedback and Political Change." World Politics 45(4):595–628.
- Post, Alison, Vivian Bronsoler and Lana Salman. 2015. Hybrid Regimes for Local Public Goods Provision: A Framework for Analysis. Working paper San Francisco, CA: .
- *Private School Universe Survey (PSS).* 2010. Technical report "U.S. Department of Education, National Center for Education Statistics".
- Rangaraju, Baladevan, James Tooley and Pauline Dixon. 2012. The Private School Revolution in Bihar: Findings from a Survey in Patna Urban. Technical report India Institute New Delhi: .
- Rao, Gautam. 2013. "Familiarity Does Not Breed Contempt: Diversity, Discrimination and Generosity in Delhi Schools.".

- Ravitch, Diane. 2011. The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education. New York: Basic Books.
- Ravitch, Diane. 2014. Reign of Error: The Hoax of the Privatization Movement and the Danger to America's Public Schools. First vintage books edition. ed. New York: Vintage Books.
- Rudolph, Lloyd I. and Susan H. Rudolph. 2001. "Iconisation of Chandrababu: Sharing Sovereignty in India's Federal Market Economy." *Economic and Political Weekly* 36(18):1541– 1552.
- Schattschneider, E.E. 1935. Politics, Pressures and the Tariff. New York: Prentice-Hall.
- Scott, James C. 1998. Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed. Yale University Press.
- Soss, Joe. 1999. "Lessons of Welfare: Policy Design, Political Learning, and Political Action." *The American Political Science Review* 93(2):363–380.
- Srinivasan, N. 2012. *Microfinance India: State of the Sector Report 2011*. New Delhi: Sage Publications.
- Susewind, Raphael and Raheel Dhattiwala. 2014. "Spatial Variation in the" Muslim Vote" in Gujarat and Uttar Pradesh, 2014." *Economic and Political Weekly* XLIX(39):99–110.
- Swamy, Rakshita. 2015. "A State Only In Name: Push for Cash Transfers Tacitly Asks Citizens to Fend for Themselves." *Indian Express*.
- Thachil, Tariq. 2009. "Neoliberalism's Two Faces in Asia: Globalization, Educational Policies, and Religious Schooling in India, Pakistan, and Malaysia." *Comparative Politics* pp. 473–494.
- Thachil, Tariq. 2011. "Embedded Mobilization: Nonstate Service Provision as Electoral Strategy in India." *World Politics* 63(03):434–469.
- Vaishnav, Milan and Neelanjan Sircar. 2013. "Core or Swing? The Role of Electoral Context in Shaping Pork Barrel.".
- Weaver, Vesla M. and Amy E. Lerman. 2010. "Political Consequences of the Carceral State." American Political Science Review 104(04):817–833.
- Weiner, Myron. 1990. The Child and the State in India. Princeton: Princeton University Press.
- Wilkinson, Steven I. 2006. "The Politics of Infrastructural Spending in India.".
- Wolch, Jennifer R. 1990. *The Shadow State: Government and the Voluntary Sector in Transition*. New York: Foundation Center.

# A Paper Appendix

## A.1 Variable Definitions

**Household Income** This variable takes the sum of two questions that asked respondents to report household income. The first question asked what the total daily wage income was of all wage laborers that lived in the house and multiplied this answer by 30, and the second question asked what the total salary of all salaried employees in the household.

Male A dummy variable that takes the value of 1 if the respondent was male.

**General Caste** A dummy variable that takes a value of 1 if the respondent reported being classified as a member of a General or Forward Caste.

Muslim A variable that takes a value of 1 if the respondent reported being Muslim.

Age Age of the respondent.

Salaried Employees The number of salaried employees in the household.

Education Years of education of the respondent.

Number of School Children in Household Number of school-aged children in the household (5-16).

**Partisan Political Participation Index** A summary index of 5 variables: *Member of a Political Party, Attended Political Meetings, Canvassed for a Political Party, Distributed Political Leaflets.* 

**Member of a Political Party** A variable that was coded 1 if a respondent answered "Yes" to the question "Are you a member of a political party?" and 0 otherwise.

Attended Political Meetings A variable that was coded 1 if a respondent answered "Yes" to the question "Have you participated in a political meeting or gathering such as an election meeting, procession, or rally over the past year?" and 0 otherwise.

**Canvassed for a Political Party** A variable that was coded 1 if a respondent answered "Yes" to the question "Have you participated in door to door canvassing in the past year?" and 0 otherwise.

**Distributed Political Leaflets** A variable that was coded 1 if a respondent answered "Yes" to the question "Have you distributed election leafless or put up posters in the past year?" and 0 otherwise.

**Non-Partisan Political Participation Index** A summary index of four variables: *Member of Caste Association, Member of Cooperative, Member of SHG, Gram Sabha.* 

**Member of Caste Association** A variable that was coded 1 if a respondent answered "Yes" to the question "Are you a member of any religious/caste organisation or association?" and 0 otherwise.

**Member of Cooperative or Labor Union** A variable that was coded 1 if a respondent answered "Yes" to the question "Do you belong to any other associations and organisation like cooperatives, farmer's associations, trade unions, welfare organisations, school management committees, or cultural and sports organisations?" and 0 otherwise.

**Member of SHG** A variable that was coded 1 if a respondent answered "Yes" to the question "Are you a member of a local SelfHelp Group?" and 0 otherwise.

**Gram Sabha** A variable that was coded 1 if a respondent answers "Yes" to the question "Did you attend your village's last *Gram Sabha* meeting?"

**Private Sector Index** A summary index of three variables: *Private Job, Private Services*, and *Private Financing*.

**Private Job** A variable that takes the value 1 if a respondent answers "Private Job" to the question, "If you were looking for a job today, would you prefer a government job, a private sector job, or to be self-employed?" and 0 otherwise.

**Private Services** A variable that takes the value of 1 if a respondent answers "Private Body" to the question, "If you were seeking health services or education for a family member today, would you prefer the service from a government body or from a private body?" and 0 otherwise.

**Private Financing** A variable that takes the value of 1 if a respondent answers "Private actors should both finance and administer these services," to the question, "Which statement about the provision of health care and education do you agree with more?" and 0 otherwise.

**Voucher Child in Private School** A variable that takes the value of 1 if a respondent reports enrolling their voucher lottery child in a private school *after* the voucher lottery period finished.

**Children in Private Schools** A sum of the number of school-aged children in the household enrolled in private schools.

**Use Private Health Services** A variable that takes a value of 1 if a respondent mentions a private health service in answer to the question, "If a family member falls sick, where would you take them?"

**Valuation of Public Services Index** A summary index of two variables: *Valuation of Government Schools* and *Valuation of Food Subsidies*.

Valuation of Government Schools A variable that took the value the respondent stopped at to the question "If you were given a choice between receiving an annual education scholarship from the government of  $\mathcal{X}$  per year or  $\mathcal{X}/12$  per month that you can spend on your child's education in any way you wish (including private school fees, books, uniform, transport, and private tuition), or being able to send your child to the government school for free (as it currently is), what would you prefer?" The question began by setting X at  $\mathcal{X}3,000$  per year (or  $\mathcal{X}250$  per month) and progressed in  $\mathcal{X}500$  per year increments to  $\mathcal{X}10,000$  per year (or  $\mathcal{X}833$  per month). If the respondent rejected the offer at  $\mathcal{X}10,000$  per year, the respondent was asked at what value of scholarship would they be indifferent between government provision or receiving a scholarship, and the variable takes this value.

**Valuation of Food Subsidies** A variable that took the value the respondent stopped at to the question "Would you prefer a monthly cash transfer from the government of  $\mathbf{X}$  INSTEAD of your current monthly grain/fuel entitlements at the Ration Shop?" The question began by setting X at  $\mathbf{Z}$ 200 per month and progressed in  $\mathbf{Z}$ 50 increments to  $\mathbf{Z}$ 1,000 per month. If the respondent rejected the offer at  $\mathbf{Z}$ 1,000 per month, the respondent was asked at what value of cash transfer would they be indifferent between government provision of rations or receiving a cash transfer and the variable takes this value.

**Teachers in this Village Work as Election Monitors** A variable that takes the value of 1 if a respondent reports knowing that government school teachers work as election monitors.

**Teachers in this Village Work as Census Enumerators** A variable that takes the value of 1 if a respondent reports knowing that government school teachers work as census enumerators.

**Care about well-being of students** Answer to the question "Do you think that government teachers care about the well-being of their students?" from "Very much care", "Somewhat care", "Somewhat don't care", "Very much don't care".

**Treat all students equally** Coded as 1 if respondents answer "Yes" to question "Do you think that government school teachers treat all students equally?"

**State Intermediaries** For each variable that composes the index, the variable was coded as 1 if respondents claimed to go to one of the following: A local government (panchayat) member, a block or district level government bureaucrat, a state or local politician, a member of an official political party. If respondents said they did not use anyone, the variable was coded as 0.

**Non-State Intermediaries** For each variable that composes the index, the variable was coded as 1 if respondents claimed to go to one of the following: Community associations, Caste groups, local informal "fixers", an NGO, a private school teacher, or family. If respondents said they did not use anyone, the variable was coded as 0.

### A.2 Selection & Compliance

Despite the school voucher lottery relying on randomized assignment, there exist two prior avenues for selection into treatment. First, participants had to choose to enter their name into the voucher lottery. As we can see from Table 6, this led to participants that were of lower socioeconomic status than the average household in the same villages and districts. Second, vouchers winners, upon winning the lottery, had to choose whether to take up the lottery or not, and could drop out at any point, while those that did not win the lottery could choose to send their children to privates schools out of pocket. As the treatment was over five years, there was a long time for participants to violate assignment status. Tables 3 and 4 present compliance in the full sample and in my smaller downstream sample. Compliance was slightly higher in my downstream sample, likely due to respondent out-migration from the full sample and the subsequent inability of surveyors to locate them.

Compliance Rate of Downstream Sample								
	Offered	Voucher						
	No	Yes						
Total	405	797						
Took up Admission	NA	606						
Took-up Admission		(76%)						
In Drivata School After Five Veere	93	457						
In Thvate School After Five Tears	(23%)	(57%)						

Table 4: Compliance Rate: Downstream Sample

### A.3 First-Stage Estimator for Instrumental Variable Regression

As we can see from Tables 3 and 4, there was about 43 percent non-compliance in the downstream sample. The third coefficient plot in every coefficient plot represents an instrumental variable regression where the an indicator of whether households kept their children in private school for five years is instrumented original assignment into treatment and control. In Table 5 I report the first stage of this regression for interested readers and note that the F-Statistic passes all conventional measures for the strength of an instrument.

	Private School at Endline	Private School at Endline	Private School at Endline
Voucher Winner	0.347***	0.350***	0.349***
	(0.029)	(0.029)	(0.030)
Observations	1161	1161	1095
F-Stat	139.582	141.609	18.273
District Fixed Effects	No	Yes	Yes
Controls	No	No	Yes

Standard errors in parentheses

\* *p* < .1, \*\* *p* < .05, \*\*\* *p* < .01

Table 5: First-Stage Regression

## **B** Online Appendix

#### **B.1** The Andhra Pradesh School Choice Experiment

Improving on existing voucher experiments, the Andhra Pradesh School Choice Experiment (APSC) experiment employed a two-stage randomization design. Villages selected for the project were first randomized into "treatment" villages that would receive vouchers and "control" villages that would receive no vouchers Once treatment villages were selected, there was a second round of randomization where households within treatment villages were then entered into a voucher lottery. This created both a child and village level counterfactual where some children within villages received vouchers and others did not, and then some villages had no voucher winning children at all.

The original experiment operated across five districts of Andhra Pradesh - Nizamabad, Medak, Kedapa, East Godavari, and Visakhapatnam - specifically chosen to account for Andhra Pradesh's cultural and socioeconomic diversity.<sup>22</sup> The APSC project was conducted over 180 villages that had at least one recognized private school.<sup>23</sup> The initial village level randomization randomized 90 villages into treatment villages, and 90 control villages. Due to the small size of the program relative to the size of villages, I hold no theoretical expectations for effects at the village, as opposed to household, level. As a result, I only sampled from treatment villages in which the second stage randomization selected voucher children.

A household could only enter a child into the lottery if they were in Upper Kindergarten or Standard 1 at the time of the lottery, ensuring that the child would benefit from five years of private education if they received a voucher. The voucher provided for fees, books, and school uniforms, but not school lunches or transportation to a *local* private school.<sup>24</sup> The emphasis on local private schools restricted households to sending children to schools within their village, although villages were purposefully selected to have at least one government recognized private school. Within treatment villages, 3,097 households applied for a voucher, of which 1,980 (64 percent) were selected by lottery to receive a voucher. 1,210 of the 1,980 (61 percent) households accepted the voucher and enrolled in a private school at the beginning of the project. At the end of five years 980 households (83 percent) remained in private schools. Table 3 provides the full details of compliers and non-compliers.

For a more detailed treatment of the original Andhra Pradesh School Choice Experiment, see Muralidharan and Sundararaman (2015). The original experiment found that test scores in math and Telugu (the vernacular language of Andhra Pradesh) between students

<sup>&</sup>lt;sup>22</sup>In the recent division of Andhra Pradesh into the two states of Andhra Pradesh and Telengana, Nizamabad and Medak became part of the newly formed Telengana state, while Kedapa, East Godavari, and Visakhapatnam remained in Andhra Pradesh.

<sup>&</sup>lt;sup>23</sup>Recognized private schools are those that have been registered and recognized by the state government. To receive government recognition, they must meet criteria specified in the Right to Education Act, including a certain pupil-to-teacher ratio, separate boys and girls toilets, a boundary wall to separate the school from other buildings, and a playground for children among other requirements. These requirements ensure that the quality of the school as measured by physical infrastructure is higher than many unrecognized schools that also operate in the area.

<sup>&</sup>lt;sup>24</sup>Government schools in India provide one hot cooked meal a day to students through a Central Government scheme known as the Midday Meal Scheme. The scheme is often credited with increasing enrollment in government schools (Drèze and Kingdon, 2001), although no interviewed households cited the lack of free meals as a barrier to sending their children to private schools if they received a voucher.

in private schools and government schools were not significantly different. Two important caveats should be added, however. While government schools teach an average of three subjects (math, Telugu, and a joint subject of science and social studies called "environmental studies" (EVS)) students in private schools study a far greater number of subjects including English, Hindi, separate classes for social studies and science, and computer use. Accounting for time use within schools, private schools achieve greater "bang for their buck," by achieving the same test scores using less instructional time on the subjects that both types of schools share in common, while attaining higher test scores in subjects, such as Hindi, that government schools do not focus on as much. Moreover, private schools in the sample spend an average of ₹3,000 per student per year, while government schools in the sample spend an average of ₹8,000 per student per year (approximately \$50 and \$130 per student per year respectively). The second caveat is that there is considerable disruption for students that join private schools not in their vernacular language.<sup>25</sup> For students that join Telugu medium private schools, their test scores across all subjects are far better than students in Telugu medium government schools.

<sup>&</sup>lt;sup>25</sup>Private schools in Andhra Pradesh generally fall into two categories, "Telugu medium" and "English medium" schools. Telugu medium schools conduct instruction for all classes in Telugu apart from second and third language classes, while English medium schools conduct all instruction in English.

	Downstream Sample	Census: Survey Villages	Census: Survey Districts	Census: All India
Literate (%)	25.79	51.96	60.67	57.91
Agricultural Labor (%)	50.33	54.01	62.08	32.94
Unemployed (%)	0.50	207.52	164.23	197.30
Scheduled Caste (%)	24.29	5.83	20.47	18.46
Scheduled Tribe (%)	2.41	0.72	5.17	11.26

#### **B.2** Downstream Sampling

 Table 6: Comparison of Sample Socieconomic Indicators

As we can see from Table 1, there was covariate balance between treatment and control households in both the full APSC sample and my reduced downstream sub-sample. As we can see from 6, households in my sample were less literate and more households work as agricultural laborers than the district wide averages for the five districts I surveyed in, suggesting my respondents were slightly poorer than district averages. Households reported far lower rates of unemployement than the district wide average, but this might be a result of different measures of employment between the two surveys, and I surveyed slightly more scheduled caste households and slightly fewer scheduled tribe households.

Surveyors were instructed to survey the chief decision maker in the household or the person in charge of schooling decisions for children in the household and to return at a later date if either of those two people were not present. I sampled households from the original APSC sample list, stratifying by district and ensuring a similar balance between treatment and control households as the original intervention. Surveys lasted between 50 minutes and one and a half hours. Semi-structured interviews lasted between 30 minutes and two hours. Simultaneous translation was provided by three of the 11 surveyors who were fluent in English and Telugu.

### **B.3** Full Results Tables

In this section, I present the full regression results, including the coefficients on all control variables (Column 2 in all tables). I also include a series of additional robustness checks in this analysis: using treatment status as an instrument for whether households *accepted* the voucher (Column 3), whether households *enrolled* in a private school (Column 4), whether children *remained* in a private school for the entire voucher experiment (this estimator is the one presented in the results of the main body of the paper) (Column 5), and whether households enrolled their children in English medium schools (Column 6).

We can also view these tables as results that are robust to alternative measures of school choice (e.g. voucher use and years in private school). Moreover, comparing these measures reveals that the treatment effects are stronger along the intensive margin (i.e. how *much* does each household use private schools, conditional on any attendance) rather than the extensive margin (i.e. any attendance at a private school). These results add support to one of my primary mechanisms, the idea of private sector *permanence*, as households that spent *more* time in private schools are more likely to hold stronger market-oriented beliefs.

# B.3.1 Political Participation

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.070 (0.047)	0.066 (0.048)				
Accepted Voucher			0.094 (0.068)			
Enrolled in Private School				0.114 (0.082)		
Attended Private School					0.161 (0.140)	
English Medium						0.415 (0.310)
Household Income		0.003 (0.011)	0.003 (0.011)	0.004 (0.011)	0.006 (0.011)	0.014 (0.011)
Male		0.120** (0.053)	0.122** (0.053)	0.122** (0.053)	0.114** (0.054)	0.140** (0.058)
General Caste		-0.152** (0.066)	-0.154** (0.066)	-0.158** (0.066)	-0.143** (0.068)	-0.217*** (0.079)
Muslim		-0.080 (0.088)	-0.078 (0.088)	-0.077 (0.088)	-0.081 (0.090)	-0.054 (0.095)
Age		0.006 (0.004)	0.006 (0.004)	0.006 (0.004)	0.006* (0.004)	0.006 (0.004)
Salaried Employees		-0.068 (0.068)	-0.068 (0.067)	-0.076 (0.068)	-0.115 (0.072)	-0.172* (0.098)
Education		0.016** (0.007)	0.016** (0.007)	0.016** (0.007)	0.014** (0.007)	0.010 (0.008)
No. School Children in HH		-0.007 (0.035)	-0.005 (0.035)	-0.003 (0.035)	0.004 (0.036)	-0.001 (0.038)
Constant	-0.272*** (0.063)	-0.544*** (0.184)	-0.549*** (0.184)	-0.557*** (0.185)	-0.647*** (0.205)	-0.624*** (0.194)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 7: Political Participation Index

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.009 (0.011)	0.009 (0.012)				
Accepted Voucher			0.013 (0.016)			
Enrolled in Private School				0.016 (0.020)		
Attended Private School					0.020 (0.034)	
English Medium						0.053 (0.074)
Household Income		-0.003 (0.003)	-0.003 (0.003)	-0.003 (0.003)	-0.004 (0.003)	-0.002 (0.003)
Male		0.017 (0.013)	0.017 (0.013)	0.017 (0.013)	0.018 (0.013)	0.020 (0.014)
General Caste		-0.011 (0.016)	-0.011 (0.016)	-0.011 (0.016)	-0.007 (0.017)	-0.012 (0.019)
Muslim		0.017 (0.021)	0.018 (0.021)	0.018 (0.021)	0.016 (0.022)	0.018 (0.023)
Age		0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Salaried Employees		-0.011 (0.016)	-0.011 (0.016)	-0.012 (0.016)	-0.021 (0.018)	-0.028 (0.023)
Education		0.005*** (0.002)	0.005*** (0.002)	0.005*** (0.002)	0.005*** (0.002)	0.005** (0.002)
No. School Children in HH		0.001 (0.009)	0.001 (0.008)	0.002 (0.008)	0.002 (0.009)	0.002 (0.009)
Constant	0.005 (0.015)	-0.019 (0.045)	-0.020 (0.045)	-0.021 (0.045)	-0.025 (0.050)	-0.026 (0.047)
Observations District Fixed Effects	1198 Yes	1131 Yes	1131 Yes	1131 Yes	1092 Yes	1050 Yes

Table 8: Member of a Political Party

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.005 (0.027)	0.006 (0.028)				
Accepted Voucher			0.008 (0.039)			
Enrolled in Private School				0.010 (0.048)		
Attended Private School					0.026 (0.081)	
English Medium						0.077 (0.178)
Household Income		0.018*** (0.006)	0.018*** (0.006)	0.018*** (0.006)	0.020*** (0.006)	0.023*** (0.007)
Male		0.046 (0.031)	0.046 (0.031)	0.046 (0.031)	0.039 (0.031)	0.042 (0.033)
General Caste		-0.026 (0.039)	-0.026 (0.038)	-0.026 (0.039)	-0.019 (0.039)	-0.041 (0.045)
Muslim		-0.059 (0.052)	-0.058 (0.051)	-0.058 (0.051)	-0.053 (0.052)	-0.047 (0.054)
Age		-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.000 (0.002)
Salaried Employees		-0.059 (0.039)	-0.059 (0.039)	-0.060 (0.039)	-0.067 (0.042)	-0.082 (0.055)
Education		0.003 (0.004)	0.003 (0.004)	0.003 (0.004)	0.003 (0.004)	0.002 (0.005)
No. School Children in HH		-0.037* (0.020)	-0.037* (0.020)	-0.037* (0.020)	-0.030 (0.021)	-0.030 (0.021)
Constant	0.290*** (0.037)	0.233** (0.107)	0.232** (0.107)	0.231** (0.108)	0.166 (0.118)	0.153 (0.110)
Observations District Fixed Effects	1195 Yes	1128 Yes	1128 Yes	1128 Yes	1089 Yes	1047 Yes

Table 9: Attended a Political Meeting

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.026 (0.021)	0.020 (0.021)				
Accepted Voucher			0.028 (0.030)			
Enrolled in Private School				0.034 (0.036)		
Attended Private School					0.043 (0.062)	
English Medium						0.118 (0.134)
Household Income		0.002 (0.005)	0.002 (0.005)	0.002 (0.005)	0.003 (0.005)	0.006 (0.005)
Male		0.025 (0.023)	0.025 (0.023)	0.025 (0.023)	0.022 (0.024)	0.032 (0.026)
General Caste		-0.067** (0.029)	-0.068** (0.029)	-0.069** (0.029)	-0.065** (0.030)	-0.091*** (0.035)
Muslim		-0.028 (0.039)	-0.027 (0.039)	-0.027 (0.039)	-0.028 (0.040)	-0.014 (0.042)
Age		0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Salaried Employees		-0.002 (0.030)	-0.002 (0.030)	-0.004 (0.030)	-0.014 (0.032)	-0.036 (0.043)
Education		0.000 (0.003)	0.000 (0.003)	0.000 (0.003)	-0.001 (0.003)	-0.002 (0.004)
No. School Children in HH		0.010 (0.016)	0.011 (0.016)	0.012 (0.016)	0.013 (0.016)	0.013 (0.017)
Constant	0.009 (0.028)	-0.098 (0.082)	-0.099 (0.082)	-0.101 (0.082)	-0.127 (0.090)	-0.127 (0.086)
Observations District Fixed Effects	1197 Yes	1129 Yes	1129 Yes	1129 Yes	1090 Yes	1048 Yes

Table 10: Canvassed for a Political Party

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.029* (0.017)	0.029* (0.017)				
Accepted Voucher			0.042* (0.025)			
Enrolled in Private School				0.051* (0.030)		
Attended Private School					0.070 (0.050)	
English Medium						0.175 (0.114)
Household Income		-0.003 (0.004)	-0.003 (0.004)	-0.003 (0.004)	-0.002 (0.004)	0.000 (0.004)
Male		0.050*** (0.019)	0.051*** (0.019)	0.051*** (0.019)	0.049** (0.020)	0.060*** (0.022)
General Caste		-0.054** (0.024)	-0.055** (0.024)	-0.057** (0.024)	-0.053** (0.025)	-0.081*** (0.029)
Muslim		-0.030 (0.032)	-0.029 (0.032)	-0.028 (0.032)	-0.031 (0.033)	-0.021 (0.035)
Age		0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003* (0.001)
Salaried Employees		-0.025 (0.025)	-0.025 (0.025)	-0.029 (0.025)	-0.045* (0.027)	-0.065* (0.037)
Education		0.008*** (0.002)	0.008*** (0.002)	0.008*** (0.002)	0.007*** (0.003)	0.006** (0.003)
No. School Children in HH		0.001 (0.013)	0.001 (0.013)	0.002 (0.013)	0.004 (0.013)	0.000 (0.014)
Constant	-0.003 (0.023)	-0.107 (0.068)	-0.109 (0.068)	-0.112* (0.068)	-0.138* (0.075)	-0.119* (0.072)
Observations District Fixed Effects	1189 Yes	1121 Yes	1121 Yes	1121 Yes	1082 Yes	1040 Yes

Table 11: Distributed Leaflets for a Political Party

# B.3.2 Associational Membership

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.071* (0.037)	0.069* (0.038)				
Accepted Voucher			0.097* (0.053)			
Enrolled in Private School				0.119* (0.065)		
Attended Private School					0.178 (0.110)	
English Medium						0.351 (0.242)
Household Income		0.030*** (0.008)	0.030*** (0.008)	0.030*** (0.008)	0.034*** (0.009)	0.035*** (0.009)
Male		-0.196*** (0.042)	-0.195*** (0.041)	-0.194*** (0.041)	-0.203*** (0.042)	-0.166*** (0.045)
General Caste		-0.154*** (0.052)	-0.155*** (0.052)	-0.160*** (0.052)	-0.134** (0.054)	-0.143** (0.062)
Muslim		-0.081 (0.069)	-0.079 (0.069)	-0.078 (0.069)	-0.087 (0.071)	-0.078 (0.074)
Age		-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.000 (0.003)	-0.002 (0.003)
Salaried Employees		-0.066 (0.053)	-0.066 (0.053)	-0.074 (0.053)	-0.108* (0.057)	-0.174** (0.076)
Education		0.005 (0.005)	0.005 (0.005)	0.004 (0.005)	0.002 (0.005)	-0.002 (0.006)
No. School Children in HH		-0.039 (0.028)	-0.037 (0.027)	-0.035 (0.027)	-0.028 (0.028)	-0.042 (0.029)
Constant	0.239*** (0.050)	0.262* (0.145)	0.257* (0.144)	0.248* (0.145)	0.126 (0.161)	0.279* (0.151)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

 Table 12: Associational Membership Index

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.007 (0.017)	-0.003 (0.017)				
Accepted Voucher			-0.005 (0.025)			
Enrolled in Private School				-0.006 (0.030)		
Attended Private School					-0.005 (0.051)	
English Medium						0.001 (0.112)
Household Income		0.006 (0.004)	0.006 (0.004)	0.006 (0.004)	0.006 (0.004)	0.006 (0.004)
Male		0.088*** (0.019)	0.087*** (0.019)	0.087*** (0.019)	0.085*** (0.020)	0.084*** (0.021)
General Caste		-0.011 (0.024)	-0.011 (0.024)	-0.011 (0.024)	-0.004 (0.025)	-0.005 (0.028)
Muslim		-0.067** (0.032)	-0.067** (0.032)	-0.067** (0.032)	-0.068** (0.033)	-0.068** (0.034)
Age		-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002 (0.001)	-0.002 (0.001)
Salaried Employees		-0.015 (0.025)	-0.015 (0.025)	-0.014 (0.025)	-0.021 (0.026)	-0.025 (0.035)
Education		-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.003)	-0.001 (0.003)
No. School Children in HH		0.012 (0.013)	0.012 (0.013)	0.012 (0.013)	0.010 (0.013)	0.008 (0.014)
Constant	0.196*** (0.014)	0.189*** (0.066)	0.813*** (0.067)	0.814*** (0.068)	0.807*** (0.074)	0.811*** (0.070)
Observations District Fixed Effects	1194 Yes	1127 Yes	1127 Yes	1127 Yes	1089 Yes	1047 Yes

Table 13: Member of a Caste Association

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.014 (0.019)	0.016 (0.019)				
Accepted Voucher			0.022 (0.027)			
Enrolled in Private School				0.027 (0.033)		
Attended Private School					0.029 (0.056)	
English Medium						0.058 (0.122)
Household Income		0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.004 (0.005)
Male		0.003 (0.021)	0.003 (0.021)	0.003 (0.021)	0.001 (0.022)	0.005 (0.023)
General Caste		-0.047* (0.027)	-0.047* (0.027)	-0.048* (0.027)	-0.042 (0.028)	-0.046 (0.032)
Muslim		0.014 (0.036)	0.014 (0.036)	0.015 (0.036)	0.013 (0.037)	0.014 (0.038)
Age		-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.000 (0.002)	-0.000 (0.002)
Salaried Employees		-0.047* (0.027)	-0.048* (0.027)	-0.049* (0.027)	-0.058** (0.029)	-0.066* (0.039)
Education		0.009*** (0.003)	0.009*** (0.003)	0.009*** (0.003)	0.009*** (0.003)	0.009*** (0.003)
No. School Children in HH		0.018 (0.014)	0.018 (0.014)	0.019 (0.014)	0.019 (0.015)	0.019 (0.015)
Constant	0.098*** (0.015)	0.028 (0.073)	-0.030 (0.074)	-0.031 (0.075)	-0.045 (0.083)	-0.027 (0.078)
Observations District Fixed Effects	1189 Yes	1122 Yes	1122 Yes	1122 Yes	1084 Yes	1042 Yes

Table 14: Member of a Cooperative or Labor Union

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.051* (0.026)	0.046* (0.026)				
Accepted Voucher			0.066* (0.037)			
Enrolled in Private School				0.080* (0.045)		
Attended Private School					0.127* (0.075)	
English Medium						0.249 (0.167)
Household Income		0.020*** (0.006)	0.021*** (0.006)	0.021*** (0.006)	0.024*** (0.006)	0.026*** (0.006)
Male		-0.209*** (0.029)	-0.209*** (0.029)	-0.208*** (0.029)	-0.213*** (0.029)	-0.185*** (0.031)
General Caste		-0.086** (0.036)	-0.087** (0.036)	-0.091** (0.036)	-0.075** (0.037)	-0.078* (0.043)
Muslim		-0.060 (0.048)	-0.059 (0.048)	-0.058 (0.048)	-0.065 (0.049)	-0.057 (0.051)
Age		0.000 (0.002)	0.000 (0.002)	0.000 (0.002)	0.001 (0.002)	-0.000 (0.002)
Salaried Employees		-0.009 (0.037)	-0.009 (0.037)	-0.014 (0.037)	-0.033 (0.039)	-0.081 (0.053)
Education		-0.004 (0.004)	-0.004 (0.004)	-0.005 (0.004)	-0.006 (0.004)	-0.010** (0.004)
No. School Children in HH		-0.055*** (0.019)	-0.054*** (0.019)	-0.052*** (0.019)	-0.044** (0.020)	-0.056*** (0.020)
Constant	0.703*** (0.022)	0.747*** (0.099)	0.855*** (0.100)	0.849*** (0.101)	0.754*** (0.112)	0.869*** (0.105)
Observations District Fixed Effects	1194 Yes	1127 Yes	1127 Yes	1127 Yes	1089 Yes	1047 Yes

 Table 15: Member of a Self-Help Group

### **B.3.3** Intention to Vote

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.034 (0.039)	0.027 (0.039)				
Accepted Voucher			0.038 (0.055)			
Enrolled in Private School				0.047 (0.067)		
Attended Private School					0.048 (0.111)	
English Medium						0.051 (0.243)
Household Income		-0.002 (0.009)	-0.002 (0.009)	-0.002 (0.009)	-0.001 (0.009)	0.001 (0.009)
Male		-0.044 (0.043)	-0.044 (0.043)	-0.043 (0.043)	-0.033 (0.043)	-0.037 (0.046)
General Caste		0.070 (0.054)	0.069 (0.054)	0.068 (0.054)	0.062 (0.054)	0.054 (0.062)
Muslim		0.120* (0.072)	0.121* (0.072)	0.121* (0.072)	0.107 (0.072)	0.095 (0.074)
Age		0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.003 (0.003)
Salaried Employees		-0.143*** (0.055)	-0.143*** (0.055)	-0.146*** (0.055)	-0.169*** (0.058)	-0.166** (0.077)
Education		0.015*** (0.005)	0.015*** (0.005)	0.015*** (0.005)	0.014** (0.006)	0.015** (0.006)
No. School Children in HH		-0.025 (0.029)	-0.024 (0.029)	-0.023 (0.029)	-0.015 (0.029)	-0.008 (0.030)
Constant	-0.022 (0.032)	-0.123 (0.149)	-0.036 (0.150)	-0.040 (0.151)	-0.029 (0.163)	0.000 (0.152)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

 Table 16: Electoral Participation Index

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.004 (0.015)	-0.002 (0.015)				
Accepted Voucher			-0.003 (0.021)			
Enrolled in Private School				-0.004 (0.026)		
Attended Private School					-0.006 (0.043)	
English Medium						-0.017 (0.091)
Household Income		-0.007** (0.003)	-0.007** (0.003)	-0.007** (0.003)	-0.006* (0.003)	-0.006 (0.003)
Male		0.020 (0.017)	0.020 (0.016)	0.020 (0.016)	0.021 (0.017)	0.016 (0.018)
General Caste		0.032 (0.021)	0.032 (0.021)	0.032 (0.021)	0.019 (0.021)	0.018 (0.024)
Muslim		0.012 (0.028)	0.012 (0.027)	0.012 (0.027)	0.018 (0.028)	0.012 (0.029)
Age		-0.002 (0.001)	-0.002* (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002* (0.001)
Salaried Employees		-0.060*** (0.021)	-0.060*** (0.021)	-0.060*** (0.021)	-0.066*** (0.022)	-0.055* (0.029)
Education		0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.007*** (0.002)
No. School Children in HH		0.014 (0.011)	0.014 (0.011)	0.014 (0.011)	0.013 (0.011)	0.015 (0.011)
Constant	0.921*** (0.012)	1.001*** (0.057)	1.074*** (0.057)	1.074*** (0.058)	1.070*** (0.064)	1.065*** (0.059)
Observations District Fixed Effects	1188 Yes	1122 Yes	1122 Yes	1122 Yes	1083 Yes	1041 Yes

Table 17: Intend to Vote: Lok Sabha

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.010 (0.015)	-0.011 (0.015)				
Accepted Voucher			-0.015 (0.021)			
Enrolled in Private School				-0.019 (0.026)		
Attended Private School					-0.025 (0.043)	
English Medium						-0.056 (0.090)
Household Income		0.001 (0.003)	0.001 (0.003)	0.000 (0.003)	0.002 (0.003)	0.003 (0.004)
Male		0.020 (0.017)	0.020 (0.017)	0.019 (0.017)	0.025 (0.017)	0.020 (0.018)
General Caste		0.042** (0.021)	0.042** (0.021)	0.043** (0.021)	0.035 (0.021)	0.042* (0.024)
Muslim		0.013 (0.028)	0.013 (0.028)	0.013 (0.028)	0.013 (0.028)	0.004 (0.029)
Age		-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
Salaried Employees		-0.074*** (0.021)	-0.074*** (0.021)	-0.072*** (0.021)	-0.078*** (0.022)	-0.065** (0.029)
Education		0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.007*** (0.002)
No. School Children in HH		0.012 (0.011)	0.011 (0.011)	0.011 (0.011)	0.011 (0.011)	0.015 (0.012)
Constant	0.920*** (0.012)	0.951*** (0.058)	1.032*** (0.058)	1.034*** (0.059)	1.022*** (0.064)	1.002*** (0.060)
Observations District Fixed Effects	1183 Yes	1117 Yes	1117 Yes	1117 Yes	1078 Yes	1037 Yes

Table 18: Intend to Vote: Vidhan Sabha

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.019 (0.012)	0.017 (0.012)				
Accepted Voucher			0.025 (0.017)			
Enrolled in Private School				0.030 (0.021)		
Attended Private School					0.036 (0.034)	
English Medium						0.057 (0.076)
Household Income		0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.000 (0.003)	0.001 (0.003)
Male		-0.032** (0.013)	-0.032** (0.013)	-0.032** (0.013)	-0.030** (0.013)	-0.028** (0.014)
General Caste		0.001 (0.017)	0.000 (0.017)	-0.001 (0.017)	0.003 (0.017)	-0.003 (0.020)
Muslim		0.039* (0.022)	0.039* (0.022)	0.040* (0.022)	0.032 (0.022)	0.033 (0.023)
Age		0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Salaried Employees		-0.007 (0.017)	-0.007 (0.017)	-0.009 (0.017)	-0.014 (0.018)	-0.023 (0.024)
Education		0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.001 (0.002)	0.001 (0.002)
No. School Children in HH		-0.020** (0.009)	-0.019** (0.009)	-0.019** (0.009)	-0.015* (0.009)	-0.015 (0.009)
Constant	0.945*** (0.010)	0.870*** (0.046)	0.848*** (0.047)	0.846*** (0.047)	0.855*** (0.051)	0.877*** (0.048)
Observations District Fixed Effects	1187 Yes	1121 Yes	1121 Yes	1121 Yes	1082 Yes	1040 Yes

Table 19: Voted: Panchayat

## B.3.4 Comfort with Private Services

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.086** (0.034)	0.081** (0.033)				
Accepted Voucher			0.114** (0.047)			
Enrolled in Private School				0.139** (0.057)		
Attended Private School					0.244*** (0.093)	
English Medium						0.495** (0.207)
Household Income		0.009 (0.007)	0.009 (0.007)	0.009 (0.007)	0.010 (0.007)	0.010 (0.008)
Male		-0.053 (0.037)	-0.051 (0.037)	-0.051 (0.037)	-0.064* (0.036)	-0.042 (0.039)
General Caste		0.088* (0.046)	0.086* (0.046)	0.081* (0.046)	0.095** (0.045)	0.037 (0.053)
Muslim		-0.050 (0.062)	-0.048 (0.061)	-0.046 (0.061)	-0.047 (0.060)	-0.041 (0.063)
Age		-0.005** (0.003)	-0.005** (0.003)	-0.005** (0.003)	-0.004* (0.003)	-0.005* (0.003)
Salaried Employees		0.228*** (0.047)	0.228*** (0.047)	0.219*** (0.047)	0.188*** (0.048)	0.140** (0.065)
Education		0.028*** (0.005)	0.028*** (0.005)	0.027*** (0.005)	0.024*** (0.005)	0.021*** (0.005)
No. School Children in HH		0.049** (0.025)	0.051** (0.024)	0.054** (0.024)	0.054** (0.024)	0.037 (0.025)
Constant	-0.002 (0.045)	-0.018 (0.129)	-0.024 (0.128)	-0.034 (0.128)	-0.135 (0.136)	0.049 (0.130)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

 Table 20: Private Services Index

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.003 (0.017)	-0.007 (0.017)				
Accepted Voucher			-0.010 (0.024)			
Enrolled in Private School				-0.012 (0.029)		
Attended Private School					-0.010 (0.049)	
English Medium						-0.017 (0.106)
Household Income		0.008** (0.004)	0.008** (0.004)	0.008** (0.004)	0.008** (0.004)	0.008** (0.004)
Male		-0.060*** (0.019)	-0.060*** (0.019)	-0.060*** (0.019)	-0.064*** (0.019)	-0.059*** (0.020)
General Caste		0.076*** (0.024)	0.076*** (0.024)	0.077*** (0.024)	0.083*** (0.024)	0.085*** (0.027)
Muslim		0.016 (0.032)	0.016 (0.032)	0.016 (0.032)	0.014 (0.032)	0.001 (0.033)
Age		-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Salaried Employees		-0.013 (0.024)	-0.013 (0.024)	-0.012 (0.024)	-0.006 (0.025)	0.001 (0.034)
Education		-0.004 (0.002)	-0.004 (0.002)	-0.004 (0.002)	-0.003 (0.002)	-0.003 (0.003)
No. School Children in HH		0.010 (0.013)	0.010 (0.012)	0.009 (0.012)	0.006 (0.013)	0.012 (0.013)
Constant	0.002 (0.023)	-0.032 (0.066)	-0.032 (0.066)	-0.031 (0.066)	-0.011 (0.072)	-0.039 (0.067)
Observations District Fixed Effects	1199 Yes	1131 Yes	1131 Yes	1131 Yes	1092 Yes	1050 Yes

 Table 21: Preference for Private Sector Job

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.022 (0.024)	0.028 (0.024)				
Accepted Voucher			0.040 (0.034)			
Enrolled in Private School				0.049 (0.041)		
Attended Private School					0.110 (0.070)	
English Medium						0.256* (0.155)
Household Income		0.018*** (0.005)	0.018*** (0.005)	0.018*** (0.005)	0.019*** (0.005)	0.019*** (0.006)
Male		-0.049* (0.027)	-0.049* (0.026)	-0.049* (0.027)	-0.050* (0.027)	-0.036 (0.029)
General Caste		0.039 (0.033)	0.038 (0.033)	0.037 (0.033)	0.045 (0.034)	0.012 (0.039)
Muslim		-0.090** (0.044)	-0.089** (0.044)	-0.088** (0.044)	-0.092** (0.045)	-0.100** (0.047)
Age		-0.004* (0.002)	-0.004* (0.002)	-0.004* (0.002)	-0.004** (0.002)	-0.004** (0.002)
Salaried Employees		0.032 (0.034)	0.032 (0.034)	0.029 (0.034)	0.018 (0.036)	-0.013 (0.049)
Education		0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.004 (0.004)	0.002 (0.004)
No. School Children in HH		-0.026 (0.018)	-0.025 (0.018)	-0.024 (0.018)	-0.022 (0.018)	-0.026 (0.019)
Constant	0.080** (0.032)	0.125 (0.093)	0.123 (0.092)	0.119 (0.093)	0.094 (0.103)	0.152 (0.097)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 22: Basic Services should be Provided Privately

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.018 (0.017)	0.023 (0.017)				
Accepted Voucher			0.032 (0.024)			
Enrolled in Private School				0.039 (0.030)		
Attended Private School					0.075 (0.051)	
English Medium						0.175 (0.112)
Household Income		0.016*** (0.004)	0.016*** (0.004)	0.016*** (0.004)	0.016*** (0.004)	0.016*** (0.004)
Male		-0.064*** (0.019)	-0.064*** (0.019)	-0.064*** (0.019)	-0.067*** (0.020)	-0.053** (0.021)
General Caste		0.040* (0.024)	0.040* (0.024)	0.038 (0.024)	0.048* (0.025)	0.024 (0.029)
Muslim		-0.045 (0.032)	-0.045 (0.032)	-0.044 (0.032)	-0.047 (0.033)	-0.051 (0.034)
Age		-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)
Salaried Employees		0.033 (0.025)	0.033 (0.024)	0.030 (0.025)	0.017 (0.026)	-0.008 (0.035)
Education		0.007*** (0.002)	0.007*** (0.002)	0.007*** (0.002)	0.006** (0.003)	0.005 (0.003)
No. School Children in HH		-0.016 (0.013)	-0.015 (0.013)	-0.014 (0.013)	-0.014 (0.013)	-0.019 (0.014)
Constant	0.138*** (0.023)	0.235*** (0.067)	0.234*** (0.067)	0.231*** (0.067)	0.202*** (0.075)	0.240*** (0.071)
Observations District Fixed Effects	1200 Yes	1132 Yes	1132 Yes	1132 Yes	1093 Yes	1051 Yes

Table 23: Basic Services should be Financed Privately

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.072*** (0.026)	0.059** (0.026)				
Accepted Voucher			0.085** (0.037)			
Enrolled in Private School				0.103** (0.044)		
Attended Private School					0.169** (0.072)	
English Medium						0.314** (0.159)
Household Income		-0.001 (0.006)	-0.001 (0.006)	-0.000 (0.006)	0.000 (0.006)	-0.001 (0.006)
Male		-0.049* (0.029)	-0.048* (0.029)	-0.048* (0.028)	-0.061** (0.028)	-0.050* (0.030)
General Caste		0.033 (0.036)	0.031 (0.036)	0.027 (0.036)	0.029 (0.035)	-0.022 (0.041)
Muslim		0.039 (0.048)	0.040 (0.048)	0.041 (0.047)	0.042 (0.046)	0.062 (0.048)
Age		-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.002)	-0.002 (0.002)
Salaried Employees		0.119*** (0.037)	0.119*** (0.036)	0.112*** (0.036)	0.090** (0.037)	0.065 (0.050)
Education		0.015*** (0.004)	0.015*** (0.004)	0.015*** (0.004)	0.013*** (0.004)	0.010** (0.004)
No. School Children in HH		0.015 (0.019)	0.017 (0.019)	0.019 (0.019)	0.019 (0.019)	0.005 (0.019)
Constant	0.183*** (0.034)	0.201** (0.100)	0.197** (0.099)	0.190* (0.099)	0.137 (0.105)	0.277*** (0.099)
Observations District Fixed Effects	1198 Yes	1130 Yes	1130 Yes	1130 Yes	1091 Yes	1049 Yes

Table 24: Voucher Child Continued in Private School

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.103** (0.042)	0.078* (0.041)				
Accepted Voucher			0.110* (0.058)			
Enrolled in Private School				0.134* (0.070)		
Attended Private School					0.210* (0.116)	
English Medium						0.315 (0.249)
Household Income		-0.007 (0.009)	-0.007 (0.009)	-0.006 (0.009)	-0.006 (0.009)	-0.006 (0.009)
Male		-0.108** (0.046)	-0.107** (0.045)	-0.107** (0.045)	-0.122*** (0.045)	-0.120*** (0.047)
General Caste		0.054 (0.057)	0.051 (0.057)	0.046 (0.057)	0.047 (0.056)	-0.013 (0.064)
Muslim		0.000 (0.076)	0.002 (0.076)	0.004 (0.075)	0.012 (0.074)	0.051 (0.076)
Age		-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)	0.000 (0.003)	-0.001 (0.003)
Salaried Employees		0.221*** (0.058)	0.221*** (0.058)	0.212*** (0.058)	0.191*** (0.060)	0.186** (0.079)
Education		0.027*** (0.006)	0.027*** (0.006)	0.026*** (0.006)	0.025*** (0.006)	0.023*** (0.007)
No. School Children in HH		0.199*** (0.030)	0.201*** (0.030)	0.203*** (0.030)	0.197*** (0.030)	0.174*** (0.030)
Constant	0.319*** (0.056)	0.023 (0.159)	0.017 (0.158)	0.008 (0.158)	-0.079 (0.169)	0.105 (0.156)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 25: No. Children in HH in Private Schools

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.001 (0.029)	0.009 (0.029)				
Accepted Voucher			0.013 (0.041)			
Enrolled in Private School				0.016 (0.050)		
Attended Private School					0.049 (0.085)	
English Medium						0.175 (0.183)
Household Income		0.011* (0.006)	0.011* (0.006)	0.011* (0.006)	0.011 (0.007)	0.009 (0.007)
Male		0.050 (0.032)	0.050 (0.032)	0.050 (0.032)	0.054* (0.033)	0.068** (0.034)
General Caste		0.031 (0.041)	0.030 (0.040)	0.030 (0.040)	0.054 (0.042)	0.062 (0.047)
Muslim		-0.108** (0.054)	-0.108** (0.054)	-0.108** (0.054)	-0.107** (0.055)	-0.124** (0.056)
Age		-0.004* (0.002)	-0.004* (0.002)	-0.004* (0.002)	-0.004 (0.002)	-0.004* (0.002)
Salaried Employees		0.130*** (0.041)	0.130*** (0.041)	0.129*** (0.041)	0.116*** (0.044)	0.077 (0.058)
Education		0.013*** (0.004)	0.013*** (0.004)	0.013*** (0.004)	0.012*** (0.004)	0.010** (0.005)
No. School Children in HH		-0.032 (0.021)	-0.031 (0.021)	-0.031 (0.021)	-0.031 (0.022)	-0.029 (0.022)
Constant	0.683*** (0.039)	0.753*** (0.113)	0.752*** (0.112)	0.751*** (0.113)	0.691*** (0.124)	0.731*** (0.115)
Observations District Fixed Effects	1201 Yes	1133 Yes	1133 Yes	1133 Yes	1094 Yes	1052 Yes

Table 26: Choice of Private Health Facility
#### B.3.5 Valuation of Government Services

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.095** (0.041)	-0.065* (0.039)				
Accepted Voucher			-0.093* (0.056)			
Enrolled in Private School				-0.113* (0.068)		
Attended Private School					-0.238** (0.118)	
English Medium						-0.464* (0.262)
Household Income		0.007 (0.009)	0.007 (0.009)	0.006 (0.009)	0.007 (0.009)	0.012 (0.010)
Male		0.084* (0.044)	0.083* (0.044)	0.083* (0.044)	0.084* (0.045)	0.060 (0.049)
General Caste		0.008 (0.055)	0.009 (0.055)	0.014 (0.055)	0.019 (0.058)	0.073 (0.067)
Muslim		-0.081 (0.073)	-0.083 (0.073)	-0.084 (0.073)	-0.092 (0.076)	-0.099 (0.080)
Age		0.007** (0.003)	0.007** (0.003)	0.007** (0.003)	0.007** (0.003)	0.006* (0.003)
Salaried Employees		0.052 (0.056)	0.052 (0.056)	0.059 (0.056)	0.086 (0.061)	0.131 (0.083)
Education		-0.001 (0.006)	-0.001 (0.006)	-0.001 (0.006)	0.001 (0.006)	0.004 (0.007)
No. School Children in HH		0.036 (0.029)	0.035 (0.029)	0.032 (0.029)	0.030 (0.030)	0.029 (0.032)
Constant	0.123** (0.056)	-0.299** (0.152)	-0.294* (0.152)	-0.286* (0.153)	-0.208 (0.173)	-0.328** (0.164)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 27: Willingness to Pay Index

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.032 (0.058)	-0.033 (0.060)				
Accepted Voucher			-0.046 (0.084)			
Enrolled in Private School				-0.057 (0.103)		
Attended Private School					-0.132 (0.178)	
English Medium						-0.284 (0.374)
Household Income		0.015 (0.014)	0.015 (0.014)	0.015 (0.014)	0.017 (0.014)	0.019 (0.015)
Male		0.041 (0.066)	0.042 (0.066)	0.042 (0.066)	0.037 (0.068)	0.012 (0.071)
General Caste		-0.122 (0.084)	-0.121 (0.084)	-0.118 (0.084)	-0.118 (0.087)	-0.085 (0.096)
Muslim		-0.059 (0.115)	-0.061 (0.114)	-0.063 (0.115)	-0.063 (0.118)	-0.068 (0.122)
Age		0.005 (0.005)	0.005 (0.005)	0.005 (0.005)	0.006 (0.005)	0.006 (0.005)
Salaried Employees		-0.022 (0.084)	-0.021 (0.083)	-0.018 (0.084)	-0.005 (0.090)	0.005 (0.120)
Education		0.020** (0.008)	0.020** (0.008)	0.020** (0.008)	0.022** (0.009)	0.025** (0.010)
No. School Children in HH		0.027 (0.045)	0.027 (0.045)	0.026 (0.045)	0.029 (0.046)	0.030 (0.048)
Constant	-0.113 (0.083)	-0.485** (0.236)	-0.480** (0.236)	-0.477** (0.237)	-0.456* (0.263)	-0.533** (0.247)
Observations District Fixed Effects	1078 Yes	1015 Yes	1015 Yes	1015 Yes	979 Yes	941 Yes

Table 28: Willingness to Pay: School Voucher

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.142** (0.063)	-0.094 (0.058)				
Accepted Voucher			-0.134 (0.082)			
Enrolled in Private School				-0.164 (0.101)		
Attended Private School					-0.313* (0.170)	
English Medium						-0.534 (0.363)
Household Income		0.011 (0.014)	0.011 (0.013)	0.010 (0.013)	0.011 (0.014)	0.021 (0.015)
Male		0.035 (0.067)	0.035 (0.066)	0.035 (0.067)	0.038 (0.069)	0.028 (0.074)
General Caste		0.097 (0.077)	0.100 (0.076)	0.106 (0.076)	0.120 (0.081)	0.182* (0.094)
Muslim		-0.039 (0.113)	-0.044 (0.113)	-0.050 (0.113)	-0.061 (0.118)	-0.081 (0.125)
Age		0.010** (0.005)	0.010** (0.005)	0.011** (0.005)	0.010** (0.005)	0.009* (0.005)
Salaried Employees		0.068 (0.081)	0.069 (0.081)	0.080 (0.081)	0.112 (0.088)	0.177 (0.121)
Education		-0.010 (0.008)	-0.010 (0.008)	-0.009 (0.008)	-0.007 (0.009)	-0.005 (0.010)
No. School Children in HH		0.080* (0.045)	0.080* (0.045)	0.076* (0.045)	0.071 (0.046)	0.058 (0.049)
Constant	0.374*** (0.103)	-0.294 (0.238)	-0.291 (0.237)	-0.280 (0.238)	-0.124 (0.265)	-0.316 (0.256)
Observations District Fixed Effects	994 Yes	930 Yes	930 Yes	930 Yes	903 Yes	865 Yes

Table 29: Willingness to Pay: PDS

# B.3.6 State Claim Making Networks

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.068** (0.030)	-0.061** (0.030)				
Accepted Voucher			-0.087** (0.043)			
Enrolled in Private School				-0.106** (0.053)		
Attended Private School					-0.170* (0.090)	
English Medium						-0.328* (0.194)
Household Income		-0.026*** (0.007)	-0.026*** (0.007)	-0.026*** (0.007)	-0.026*** (0.007)	-0.027*** (0.007)
Male		0.099*** (0.034)	0.098*** (0.034)	0.098*** (0.034)	0.111*** (0.035)	0.106*** (0.036)
General Caste		0.014 (0.042)	0.016 (0.042)	0.020 (0.042)	-0.003 (0.044)	0.041 (0.050)
Muslim		-0.038 (0.056)	-0.040 (0.056)	-0.041 (0.056)	-0.010 (0.058)	-0.027 (0.059)
Age		-0.004* (0.002)	-0.004* (0.002)	-0.004* (0.002)	-0.005* (0.002)	-0.005** (0.002)
Salaried Employees		-0.093** (0.043)	-0.093** (0.043)	-0.086** (0.043)	-0.059 (0.046)	-0.022 (0.061)
Education		0.008* (0.004)	0.008* (0.004)	0.008* (0.004)	0.010** (0.004)	0.012** (0.005)
No. School Children in HH		0.023 (0.022)	0.022 (0.022)	0.020 (0.022)	0.014 (0.023)	0.016 (0.024)
Constant	0.045* (0.025)	0.312*** (0.115)	0.378*** (0.117)	0.386*** (0.118)	0.446*** (0.131)	0.394*** (0.122)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 30: State Claim Making Networks Index

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.037* (0.020)	-0.033 (0.020)				
Accepted Voucher			-0.047 (0.029)			
Enrolled in Private School				-0.057 (0.035)		
Attended Private School					-0.103* (0.060)	
English Medium						-0.173 (0.125)
Household Income		-0.019*** (0.005)	-0.019*** (0.005)	-0.019*** (0.005)	-0.020*** (0.005)	-0.021*** (0.005)
Male		0.039* (0.023)	0.038* (0.022)	0.038* (0.022)	0.043* (0.023)	0.036 (0.024)
General Caste		-0.014 (0.028)	-0.014 (0.028)	-0.012 (0.028)	-0.033 (0.030)	-0.028 (0.033)
Muslim		-0.006 (0.038)	-0.006 (0.038)	-0.006 (0.038)	0.003 (0.039)	0.006 (0.040)
Age		0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Salaried Employees		-0.007 (0.029)	-0.006 (0.029)	-0.003 (0.029)	0.017 (0.031)	0.040 (0.041)
Education		0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.004 (0.003)	0.005 (0.003)
No. School Children in HH		0.037** (0.015)	0.036** (0.015)	0.035** (0.015)	0.032** (0.015)	0.035** (0.016)
Constant	0.168*** (0.016)	0.151* (0.077)	0.027 (0.078)	0.031 (0.079)	0.079 (0.088)	0.041 (0.082)
Observations District Fixed Effects	1173 Yes	1107 Yes	1107 Yes	1107 Yes	1068 Yes	1029 Yes

Table 31: State Channel: Access to Government School

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.007 (0.035)	0.003 (0.035)				
Accepted Voucher			0.005 (0.051)			
Enrolled in Private School				0.006 (0.065)		
Attended Private School					-0.002 (0.118)	
English Medium						0.057 (0.186)
Household Income		-0.017** (0.008)	-0.017** (0.008)	-0.017** (0.008)	-0.015* (0.008)	-0.014* (0.008)
Male		0.083** (0.040)	0.083** (0.039)	0.083** (0.039)	0.090** (0.040)	0.108*** (0.041)
General Caste		0.052 (0.045)	0.051 (0.045)	0.051 (0.045)	0.028 (0.047)	0.046 (0.051)
Muslim		0.008 (0.062)	0.008 (0.061)	0.008 (0.061)	0.021 (0.063)	0.001 (0.064)
Age		-0.005 (0.003)	-0.005* (0.003)	-0.005* (0.003)	-0.006** (0.003)	-0.007** (0.003)
Salaried Employees		-0.019 (0.051)	-0.019 (0.050)	-0.020 (0.050)	-0.010 (0.057)	-0.028 (0.062)
Education		0.009* (0.005)	0.009* (0.005)	0.009* (0.005)	0.011** (0.005)	0.007 (0.006)
No. School Children in HH		0.050* (0.027)	0.050* (0.026)	0.050* (0.026)	0.050* (0.027)	0.045* (0.027)
Constant	0.762*** (0.029)	0.908*** (0.132)	0.967*** (0.141)	0.967*** (0.141)	0.981*** (0.157)	1.032*** (0.146)
Observations District Fixed Effects	631 Yes	594 Yes	594 Yes	594 Yes	568 Yes	551 Yes

Table 32: State Channel: Access to BPL Card

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.084** (0.033)	-0.073** (0.034)				
Accepted Voucher			-0.103** (0.047)			
Enrolled in Private School				-0.129** (0.059)		
Attended Private School					-0.217** (0.100)	
English Medium						-0.361* (0.184)
Household Income		-0.013* (0.008)	-0.014* (0.008)	-0.014* (0.008)	-0.015* (0.008)	-0.018** (0.009)
Male		0.084** (0.037)	0.081** (0.037)	0.081** (0.037)	0.091** (0.039)	0.109*** (0.040)
General Caste		0.066 (0.047)	0.066 (0.047)	0.076 (0.047)	0.060 (0.051)	0.115* (0.064)
Muslim		-0.004 (0.065)	-0.004 (0.065)	-0.007 (0.065)	0.013 (0.068)	0.000 (0.071)
Age		-0.008*** (0.003)	-0.008*** (0.003)	-0.008*** (0.003)	-0.009*** (0.003)	-0.010*** (0.003)
Salaried Employees		-0.130*** (0.050)	-0.130*** (0.049)	-0.122** (0.050)	-0.087 (0.055)	-0.055 (0.070)
Education		0.006 (0.005)	0.006 (0.005)	0.006 (0.005)	0.007 (0.005)	0.008 (0.005)
No. School Children in HH		0.016 (0.026)	0.014 (0.026)	0.011 (0.026)	0.005 (0.028)	0.007 (0.029)
Constant	0.337*** (0.027)	0.641*** (0.135)	0.452*** (0.143)	0.455*** (0.143)	0.585*** (0.165)	0.500*** (0.156)
Observations District Fixed Effects	748 Yes	713 Yes	713 Yes	713 Yes	684 Yes	662 Yes

Table 33: State Channel: Access to Government Hospital

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.071*** (0.027)	-0.061** (0.027)				
Accepted Voucher			-0.087** (0.038)			
Enrolled in Private School				-0.107** (0.047)		
Attended Private School					-0.170** (0.079)	
English Medium						-0.311** (0.149)
Household Income		-0.029*** (0.007)	-0.029*** (0.007)	-0.030*** (0.007)	-0.032*** (0.007)	-0.033*** (0.007)
Male		0.031 (0.030)	0.029 (0.030)	0.026 (0.030)	0.035 (0.032)	0.021 (0.033)
General Caste		-0.009 (0.037)	-0.008 (0.037)	-0.001 (0.037)	-0.004 (0.040)	0.030 (0.047)
Muslim		0.046 (0.056)	0.040 (0.056)	0.041 (0.056)	0.071 (0.059)	0.063 (0.062)
Age		-0.005** (0.002)	-0.005** (0.002)	-0.004** (0.002)	-0.005** (0.002)	-0.004* (0.002)
Salaried Employees		-0.006 (0.039)	-0.003 (0.039)	0.004 (0.040)	0.029 (0.044)	0.086 (0.058)
Education		0.011*** (0.004)	0.011*** (0.004)	0.012*** (0.004)	0.012*** (0.004)	0.016*** (0.005)
No. School Children in HH		0.016 (0.021)	0.014 (0.021)	0.011 (0.021)	0.007 (0.022)	0.016 (0.023)
Constant	0.841*** (0.022)	1.171*** (0.108)	1.271*** (0.111)	1.280*** (0.112)	1.349*** (0.128)	1.227*** (0.119)
Observations District Fixed Effects	836 Yes	789 Yes	789 Yes	789 Yes	758 Yes	737 Yes

Table 34: State Channel: NREGA Employment

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.014 (0.031)	-0.010 (0.032)				
Accepted Voucher			-0.015 (0.047)			
Enrolled in Private School				-0.018 (0.057)		
Attended Private School					-0.003 (0.097)	
English Medium						0.018 (0.233)
Household Income		-0.010 (0.008)	-0.010 (0.008)	-0.010 (0.008)	-0.008 (0.008)	-0.011 (0.009)
Male		0.042 (0.036)	0.041 (0.036)	0.041 (0.036)	0.046 (0.037)	0.062 (0.038)
General Caste		-0.034 (0.044)	-0.034 (0.044)	-0.033 (0.044)	-0.043 (0.046)	-0.020 (0.060)
Muslim		-0.048 (0.057)	-0.048 (0.057)	-0.048 (0.057)	-0.023 (0.059)	-0.048 (0.060)
Age		0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)
Salaried Employees		-0.084* (0.046)	-0.084* (0.046)	-0.082* (0.046)	-0.085 (0.053)	-0.093 (0.082)
Education		-0.003 (0.005)	-0.003 (0.004)	-0.003 (0.004)	-0.003 (0.005)	-0.004 (0.005)
No. School Children in HH		0.008 (0.024)	0.008 (0.024)	0.008 (0.024)	0.008 (0.025)	0.003 (0.025)
Constant	0.726*** (0.025)	0.772*** (0.127)	0.937*** (0.126)	0.938*** (0.127)	0.914*** (0.143)	0.942*** (0.132)
Observations District Fixed Effects	860 Yes	815 Yes	815 Yes	815 Yes	777 Yes	752 Yes

Table 35: State Channel: Dealing with Police or Land Administration

## B.3.7 Non-State Claim Making Networks

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.086*** (0.029)	0.083*** (0.030)				
Accepted Voucher			0.118*** (0.042)			
Enrolled in Private School				0.144*** (0.052)		
Attended Private School					0.222** (0.089)	
English Medium						0.451** (0.200)
Household Income		0.019*** (0.007)	0.019*** (0.007)	0.019*** (0.007)	0.019*** (0.007)	0.021*** (0.007)
Male		-0.024 (0.033)	-0.022 (0.033)	-0.022 (0.033)	-0.038 (0.034)	-0.020 (0.037)
General Caste		-0.067 (0.041)	-0.070* (0.041)	-0.075* (0.042)	-0.051 (0.043)	-0.093* (0.051)
Muslim		0.030 (0.055)	0.033 (0.055)	0.034 (0.055)	0.009 (0.057)	0.013 (0.061)
Age		0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.004 (0.002)	0.004 (0.003)
Salaried Employees		-0.019 (0.042)	-0.019 (0.042)	-0.028 (0.042)	-0.065 (0.046)	-0.125** (0.063)
Education		-0.000 (0.004)	-0.000 (0.004)	-0.001 (0.004)	-0.002 (0.004)	-0.005 (0.005)
No. School Children in HH		-0.027 (0.022)	-0.025 (0.022)	-0.022 (0.022)	-0.018 (0.023)	-0.024 (0.024)
Constant	-0.057** (0.024)	-0.251** (0.113)	-0.150 (0.115)	-0.160 (0.116)	-0.252* (0.130)	-0.153 (0.125)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 36: Non-State Claim Making Networks Index

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.102*** (0.022)	0.099*** (0.023)				
Accepted Voucher			0.140*** (0.033)			
Enrolled in Private School				0.171*** (0.040)		
Attended Private School					0.294*** (0.073)	
English Medium						0.600*** (0.168)
Household Income		0.011** (0.005)	0.011** (0.005)	0.012** (0.005)	0.012** (0.006)	0.013* (0.007)
Male		-0.019 (0.026)	-0.018 (0.026)	-0.018 (0.026)	-0.028 (0.028)	-0.003 (0.032)
General Caste		-0.056* (0.032)	-0.058* (0.032)	-0.064** (0.033)	-0.053 (0.036)	-0.106** (0.045)
Muslim		0.075* (0.043)	0.076* (0.043)	0.078* (0.044)	0.079* (0.047)	0.077 (0.053)
Age		0.000 (0.002)	0.000 (0.002)	0.000 (0.002)	0.001 (0.002)	0.001 (0.002)
Salaried Employees		0.008 (0.032)	0.007 (0.032)	-0.004 (0.033)	-0.045 (0.038)	-0.119** (0.055)
Education		-0.004 (0.003)	-0.004 (0.003)	-0.005 (0.003)	-0.008** (0.004)	-0.012** (0.005)
No. School Children in HH		-0.030* (0.017)	-0.028* (0.017)	-0.025 (0.017)	-0.020 (0.019)	-0.034 (0.021)
Constant	0.136*** (0.018)	0.115 (0.088)	-0.039 (0.089)	-0.051 (0.091)	-0.149 (0.107)	-0.005 (0.110)
Observations District Fixed Effects	1173 Yes	1107 Yes	1107 Yes	1107 Yes	1068 Yes	1029 Yes

Table 37: Non-State Channel: Access to Government School

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.012 (0.037)	0.000 (0.038)				
Accepted Voucher			0.000 (0.055)			
Enrolled in Private School				0.001 (0.069)		
Attended Private School					0.018 (0.124)	
English Medium						-0.036 (0.202)
Household Income		0.014 (0.008)	0.014* (0.008)	0.014* (0.008)	0.011 (0.009)	0.010 (0.009)
Male		-0.068 (0.043)	-0.068 (0.042)	-0.068 (0.042)	-0.074* (0.043)	-0.089** (0.044)
General Caste		-0.065 (0.048)	-0.065 (0.047)	-0.065 (0.048)	-0.042 (0.050)	-0.060 (0.055)
Muslim		0.015 (0.066)	0.016 (0.065)	0.016 (0.065)	0.002 (0.067)	0.023 (0.068)
Age		0.006* (0.003)	0.006* (0.003)	0.006* (0.003)	0.007** (0.003)	0.008** (0.003)
Salaried Employees		-0.008 (0.054)	-0.008 (0.053)	-0.008 (0.053)	-0.023 (0.060)	-0.006 (0.066)
Education		-0.007 (0.005)	-0.007 (0.005)	-0.007 (0.005)	-0.009* (0.005)	-0.005 (0.006)
No. School Children in HH		-0.045 (0.028)	-0.045 (0.028)	-0.045 (0.028)	-0.046 (0.029)	-0.040 (0.029)
Constant	0.263*** (0.030)	0.092 (0.141)	0.109 (0.150)	0.109 (0.150)	0.101 (0.165)	0.062 (0.157)
Observations District Fixed Effects	627 Yes	590 Yes	590 Yes	590 Yes	565 Yes	548 Yes

Table 38: Non-State Channel: Access to BPL Card

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.091*** (0.030)	0.081*** (0.030)				
Accepted Voucher			0.114*** (0.042)			
Enrolled in Private School				0.142*** (0.052)		
Attended Private School					0.240*** (0.090)	
English Medium						0.414** (0.169)
Household Income		0.012* (0.007)	0.013* (0.007)	0.013* (0.007)	0.014* (0.008)	0.017** (0.008)
Male		-0.065** (0.033)	-0.062* (0.033)	-0.062* (0.033)	-0.078** (0.035)	-0.089** (0.037)
General Caste		-0.089** (0.042)	-0.089** (0.042)	-0.099** (0.042)	-0.083* (0.046)	-0.139** (0.058)
Muslim		-0.008 (0.057)	-0.009 (0.057)	-0.006 (0.058)	-0.027 (0.062)	-0.016 (0.065)
Age		0.005** (0.003)	0.005** (0.003)	0.005** (0.003)	0.006** (0.003)	0.007** (0.003)
Salaried Employees		0.079* (0.044)	0.079* (0.044)	0.070 (0.044)	0.033 (0.050)	-0.010 (0.064)
Education		-0.005 (0.004)	-0.005 (0.004)	-0.005 (0.004)	-0.007 (0.004)	-0.007 (0.005)
No. School Children in HH		-0.021 (0.023)	-0.019 (0.023)	-0.015 (0.023)	-0.010 (0.025)	-0.013 (0.026)
Constant	0.730*** (0.024)	0.537*** (0.119)	0.728*** (0.125)	0.723*** (0.126)	0.612*** (0.147)	0.719*** (0.141)
Observations District Fixed Effects	750 Yes	715 Yes	715 Yes	715 Yes	686 Yes	664 Yes

Table 39: Non-State Channel: Access to Government Hospital

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.058* (0.033)	0.045 (0.034)				
Accepted Voucher			0.064 (0.048)			
Enrolled in Private School				0.079 (0.059)		
Attended Private School					0.106 (0.098)	
English Medium						0.185 (0.184)
Household Income		0.032*** (0.008)	0.033*** (0.008)	0.033*** (0.008)	0.035*** (0.009)	0.036*** (0.009)
Male		0.003 (0.038)	0.005 (0.038)	0.007 (0.038)	-0.006 (0.039)	0.004 (0.041)
General Caste		-0.017 (0.047)	-0.017 (0.046)	-0.023 (0.046)	-0.013 (0.049)	-0.025 (0.058)
Muslim		-0.001 (0.071)	0.004 (0.071)	0.003 (0.071)	-0.023 (0.073)	-0.014 (0.076)
Age		0.005* (0.003)	0.005* (0.003)	0.005* (0.003)	0.006** (0.003)	0.005* (0.003)
Salaried Employees		-0.111** (0.050)	-0.113** (0.050)	-0.119** (0.050)	-0.138** (0.055)	-0.179** (0.072)
Education		-0.007 (0.005)	-0.007 (0.005)	-0.007 (0.005)	-0.007 (0.005)	-0.008 (0.006)
No. School Children in HH		-0.007 (0.026)	-0.006 (0.026)	-0.003 (0.026)	-0.002 (0.027)	-0.005 (0.028)
Constant	0.277*** (0.027)	-0.112 (0.137)	-0.197 (0.140)	-0.204 (0.141)	-0.254 (0.159)	-0.175 (0.146)
Observations District Fixed Effects	833 Yes	786 Yes	786 Yes	786 Yes	755 Yes	734 Yes

Table 40: Non-State Channel: NREGA Employment

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.036 (0.034)	0.047 (0.035)				
Accepted Voucher			0.070 (0.052)			
Enrolled in Private School				0.085 (0.064)		
Attended Private School					0.103 (0.108)	
English Medium						0.257 (0.269)
Household Income		0.003 (0.009)	0.003 (0.009)	0.003 (0.009)	0.002 (0.009)	0.007 (0.010)
Male		0.006 (0.040)	0.009 (0.040)	0.010 (0.040)	-0.001 (0.041)	0.004 (0.044)
General Caste		-0.013 (0.049)	-0.015 (0.048)	-0.018 (0.049)	-0.009 (0.051)	-0.058 (0.069)
Muslim		0.033 (0.064)	0.032 (0.063)	0.032 (0.063)	0.015 (0.065)	0.032 (0.069)
Age		-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)
Salaried Employees		-0.009 (0.051)	-0.011 (0.051)	-0.018 (0.052)	-0.041 (0.059)	-0.089 (0.094)
Education		0.010** (0.005)	0.010** (0.005)	0.009* (0.005)	0.010** (0.005)	0.009 (0.006)
No. School Children in HH		-0.021 (0.027)	-0.019 (0.026)	-0.019 (0.026)	-0.017 (0.027)	-0.020 (0.029)
Constant	0.491*** (0.028)	0.523*** (0.141)	0.787*** (0.140)	0.786*** (0.141)	0.741*** (0.160)	0.771*** (0.152)
Observations District Fixed Effects	859 Yes	814 Yes	814 Yes	814 Yes	776 Yes	751 Yes

Table 41: Non-State Channel: Dealing with Police or Land Administration

## B.3.8 Teachers Non-Teaching Duties

	IT'T	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.011 (0.021)	-0.012 (0.021)				
Accepted Voucher			-0.017 (0.029)			
Enrolled in Private School				-0.021 (0.036)		
Attended Private School					-0.013 (0.060)	
English Medium						0.001 (0.132)
Household Income		0.019*** (0.005)	0.019*** (0.005)	0.019*** (0.005)	0.018*** (0.005)	0.020*** (0.005)
Male		-0.015 (0.023)	-0.015 (0.023)	-0.015 (0.023)	-0.017 (0.023)	-0.020 (0.025)
General Caste		0.022 (0.029)	0.022 (0.029)	0.023 (0.029)	0.029 (0.029)	0.018 (0.034)
Muslim		-0.001 (0.038)	-0.001 (0.038)	-0.002 (0.038)	0.004 (0.039)	0.016 (0.040)
Age		-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Salaried Employees		0.031 (0.029)	0.031 (0.029)	0.032 (0.029)	0.036 (0.031)	0.031 (0.042)
Education		0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.010*** (0.003)	0.010*** (0.003)
No. School Children in HH		0.001 (0.015)	0.001 (0.015)	0.001 (0.015)	0.005 (0.015)	0.004 (0.016)
Constant	0.773*** (0.017)	0.662*** (0.079)	0.882*** (0.080)	0.883*** (0.080)	0.875*** (0.088)	0.850*** (0.082)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 42: Government Teachers Serve as Election Monitors

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.014 (0.020)	0.013 (0.020)				
Accepted Voucher			0.018 (0.029)			
Enrolled in Private School				0.022 (0.035)		
Attended Private School					0.060 (0.059)	
English Medium						0.103 (0.129)
Household Income		0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.007 (0.005)	0.006 (0.005)
Male		0.017 (0.022)	0.017 (0.022)	0.017 (0.022)	0.019 (0.023)	0.030 (0.024)
General Caste		-0.016 (0.028)	-0.017 (0.028)	-0.018 (0.028)	-0.014 (0.029)	-0.023 (0.033)
Muslim		-0.055 (0.037)	-0.055 (0.037)	-0.054 (0.037)	-0.059 (0.038)	-0.069* (0.039)
Age		-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)
Salaried Employees		0.006 (0.029)	0.006 (0.028)	0.004 (0.029)	-0.001 (0.031)	-0.008 (0.041)
Education		0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.003 (0.003)
No. School Children in HH		-0.019 (0.015)	-0.019 (0.015)	-0.018 (0.015)	-0.022 (0.015)	-0.028* (0.016)
Constant	0.651*** (0.016)	0.774*** (0.077)	0.945*** (0.078)	0.943*** (0.078)	0.896*** (0.087)	0.953*** (0.081)
Observations District Fixed Effects	1202 Yes	1134 Yes	1134 Yes	1134 Yes	1095 Yes	1053 Yes

Table 43: Government Teachers Serve as Census Enumerators

## **B.3.9** Teacher Perceptions

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	-0.031 (0.030)	-0.029 (0.031)				
Accepted Voucher			-0.041 (0.044)			
Enrolled in Private School				-0.050 (0.053)		
Attended Private School					-0.076 (0.089)	
English Medium						-0.166 (0.190)
Household Income		-0.002 (0.007)	-0.002 (0.007)	-0.002 (0.007)	-0.001 (0.007)	-0.002 (0.007)
Male		0.052 (0.034)	0.052 (0.034)	0.052 (0.034)	0.062* (0.034)	0.063* (0.036)
General Caste		-0.002 (0.043)	-0.002 (0.042)	0.000 (0.043)	-0.011 (0.044)	0.032 (0.049)
Muslim		-0.006 (0.057)	-0.007 (0.057)	-0.007 (0.057)	-0.020 (0.058)	-0.016 (0.059)
Age		-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.002)	-0.003 (0.002)
Salaried Employees		-0.029 (0.044)	-0.029 (0.043)	-0.025 (0.044)	-0.022 (0.046)	-0.028 (0.061)
Education		-0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)	0.001 (0.004)	0.001 (0.005)
No. School Children in HH		0.009 (0.023)	0.008 (0.023)	0.007 (0.023)	0.006 (0.023)	0.006 (0.024)
Constant	3.523*** (0.024)	3.589*** (0.117)	3.695*** (0.119)	3.699*** (0.119)	3.690*** (0.131)	3.700*** (0.122)
Observations District Fixed Effects	1185 Yes	1119 Yes	1119 Yes	1119 Yes	1081 Yes	1039 Yes

Table 44: Government Teachers Care about the Well-Being of Their Students

	ITT	ITT	IV: Accepted Voucher	IV: Enrolled	IV: Five Years	IV: English School
Voucher Winner	0.005 (0.010)	0.009 (0.011)				
Accepted Voucher			0.013 (0.015)			
Enrolled in Private School				0.015 (0.019)		
Attended Private School					0.026 (0.031)	
English Medium						0.024 (0.066)
Household Income		-0.003 (0.002)	-0.003 (0.002)	-0.003 (0.002)	-0.002 (0.002)	-0.002 (0.003)
Male		-0.001 (0.012)	-0.001 (0.012)	-0.001 (0.012)	-0.001 (0.012)	-0.001 (0.012)
General Caste		-0.011 (0.015)	-0.011 (0.015)	-0.012 (0.015)	-0.003 (0.015)	-0.005 (0.017)
Muslim		-0.006 (0.020)	-0.006 (0.020)	-0.006 (0.020)	-0.011 (0.020)	-0.003 (0.021)
Age		-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)
Salaried Employees		-0.018 (0.015)	-0.018 (0.015)	-0.019 (0.015)	-0.027* (0.016)	-0.034 (0.021)
Education		-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.000 (0.002)	-0.000 (0.002)
No. School Children in HH		-0.003 (0.008)	-0.002 (0.008)	-0.002 (0.008)	-0.004 (0.008)	-0.003 (0.008)
Constant	0.967*** (0.009)	1.105*** (0.041)	1.094*** (0.042)	1.093*** (0.042)	1.080*** (0.045)	1.078*** (0.042)
Observations District Fixed Effects	1183 Yes	1116 Yes	1116 Yes	1116 Yes	1079 Yes	1037 Yes

Table 45: Government Teachers Treat All Students Equally

#### First-Stage Regressions **B.4**

I present the first-stage regressions for all instrumented variables. I present the first-stage for having accepted a voucher in Table 46, for having enrolled in private school in Table 47, and for enrolling in an English medium school in Table 48.

	Accepted Voucher	Accepted Voucher	Accepted Voucher
Voucher Winner	0.700***	0.702***	0.704***
	(0.023)	(0.023)	(0.024)
Observations	1202	1202	1134
F-Stat	943.992	946.919	98.982
District Fixed Effects	No	Yes	Yes
Controls	No	No	Yes

Standard errors in parentheses

\* *p* < .1, \*\* *p* < .05, \*\*\* *p* < .01

Table 46: First-Stage Regression for Accepted Voucher

	Enrolled in Private School	Enrolled in Private School	Enrolled in Private School
Voucher Winner	0.573***	0.578***	0.579***
	(0.025)	(0.024)	(0.025)
Observations	1202	1202	1134
F-Stat	543.462	555.668	59.298
District Fixed Effects	No	Yes	Yes
Controls	No	No	Yes

Standard errors in parentheses \* *p* < .1, \*\* *p* < .05, \*\*\* *p* < .01

Table 47: First-Stage Regression for Enrolled in Private School

	English Medium	English Medium	English Medium
Voucher Winner	0.160***	0.162***	0.164***
	(0.027)	(0.026)	(0.026)
Observations	1116	1116	1053
F-Stat	35.874	37.587	12.476
District Fixed Effects	No	Yes	Yes
Controls	No	No	Yes

Tabl	le 48:	First-St	age R	legression	for	Engl	ish	Mec	lium